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CAPTAIN FRANCIS TUTTLE, U. S. R. C. S.
Commander U. S. Revenue Cutter Bear.



LIEUT. D. H. JARVIS, U. S. R. C. S.
Executive Officer U. S. Revenue Cutter Bear.

REPORT

ON

63222.

INTRODUCTION OF DOMESTIC REINDEER INTO ALASKA,

WITH

ILLUSTRATIONS,

BY

SHELDON JACKSON, D. D.,
GENERAL AGENT OF EDUCATION IN ALASKA.

1896.



WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1897.

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ACTION OF THE SENATE OF THE UNITED STATES.

IN THE SENATE OF THE UNITED STATES,

December 17, 1896.

Resolved, That the Secretary of the Interior be directed to transmit to the Senate the report of Dr. Sheldon Jackson upon "The introduction of domestic reindeer into the District of Alaska for 1896."

WM. R. COX, *Secretary*.

LETTER OF TRANSMITTAL.

DEPARTMENT OF THE INTERIOR,

Washington, January 5, 1897.

SIR: I am in receipt of Senate resolution of the 17th ultimo—

That the Secretary of the Interior be directed to transmit to the Senate the report of Dr. Sheldon Jackson upon “the introduction of domestic reindeer into the District of Alaska for 1896.”

In response thereto, I have the honor to transmit herewith a copy of the report indicated in the foregoing resolution.

Very respectfully,

DAVID R. FRANCIS, *Secretary.*

The PRESIDENT OF THE SENATE.



INTRODUCTION OF DOMESTIC REINDEER INTO ALASKA.

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION, ALASKA DIVISION,
Washington, D. C., December 31, 1896.

SIR: I have the honor to submit herewith my sixth annual report of
"The introduction of domestic reindeer into Alaska."

STATION.

During the year a comfortable log schoolhouse 22 by 32 feet, together with a woodhouse and bell tower for the same, has been erected for the use of the children of the employees at the station. The building has attracted considerable attention from its neat and comfortable appearance. The main headquarters building was enlarged with an addition 24 by 40 feet, built in connection with it. This addition gives accommodation for a storeroom, and also for the herders' families who may be sojourning temporarily at the station. It furnishes accommodations for keeping seal meat, oil, blubber, dried and frozen fish; also a carpenter's bench, with facilities for manufacturing sleds and snowshoes. In the attic is furnished much needed room for storing sails, boat oars, and fishing nets.

In addition to the buildings erected at the station, huts made of plank and driftwood, covered with sod and dirt, were erected at several convenient points for the accommodation of the herders passing between the herd and the main station in winter. During the severe storms of last winter these huts were found of very great value, and probably in some instances saved lives. Similar huts were also erected at the winter camp for the use of the herders.

PERSONNEL.

After a sea voyage of thirty-seven days, Mr. J. C. Widstead, who had been appointed assistant superintendent of the station, reached Port Clarence July 12 on the brig *W. H. Meyer*. Two days later, the supplies for the station being safely landed, a southerly wind springing up so increased in violence that the vessel was driven ashore from her anchorage and became a total wreck. With the wrecking of the vessel were lost the supplies of the schools at Bering Straits and also Point Barrow, together with the personal effects of the Rev. Thomas

12 INTRODUCTION OF DOMESTIC REINDEER INTO ALASKA.

Hanna and family, who were en route to their station at Cape Prince of Wales.

Owing to some misunderstanding and friction which arose over the sale of the wrecked vessel, Mr. William A. Kjellmann sent his resignation to Mr. William Hamilton, who represented the Bureau. As there was nothing else to be done, the resignation was accepted, and on July 20 Mr. J. C. Widstead was appointed superintendent, with Mr. Thorwald Kjellmann as assistant superintendent. Mr. Widstead had been selected for a subordinate position, but in the absence of any other more suitable person in that region he was necessarily given the first place upon the resignation of Mr. Kjellmann. His administration during the past year was not a success, and upon my arrival at the station, July 28, 1896, I removed him and reappointed Mr. William A. Kjellmann superintendent and Albert N. Kittilsen, M. D., assistant superintendent, these gentlemen having been sent up from the States this season for service at the station.

During last year some dissatisfaction was expressed by the Lapps that there was no physician within reach for their families. This want has been supplied by the appointment of Dr. Kittilsen as assistant superintendent of the station. The seven families of Lapps have remained with the herd, performing their usual duties with efficiency and success. The experience of the past two years has demonstrated the wisdom of their importation as instructors to the Eskimos in the care and management of deer. Their success has been so marked that hereafter, whenever a herd is loaned to a mission station, an experienced Lapp will be sent with the herd to take charge of and instruct the apprentices.

Under the tuition and direction of the experienced and skilled Lapps were ten Eskimo apprentices from different villages extending all the way from Point Hope on the Arctic shore southward and eastward to Fort Adams on the Upper Yukon River, a distance of 2,000 miles. These apprentices have made fair progress in mastering the science of managing and breeding reindeer.

In January Moses, Tatpan, Martin, and Okweetkoon were transferred from the Teller Reindeer Station to the new station established on Golovin Bay, they having come originally from that general region of country.

During the fall Oozhaloo, one of the most prominent natives at Point Barrow, with his family, was transported to the Teller Reindeer Station at his own request and accepted as an apprentice. It is hoped that ultimately he will be able to go back in charge of a herd to that distant and desolate northern section.

HERDS.

There are now five herds in Alaska, one at Cape Prince of Wales, a mission station of the Congregational Church, numbering 253; one at

Cape Nome, in charge of three experienced Eskimo apprentices, numbering 218; two at Golovin Bay, one belonging to the Swedish Evangelical Mission Station and the other to the St. James Episcopal Mission Station, together numbering 206, and the central Government herd at the Teller Reindeer Station, numbering 423, making a total of 1,100 head.

During the previous five years the transporting of reindeer from Siberia was done by the revenue cutter *Bear*. This year the *Bear*, having extra work in connection with the policing of the seal islands of Bering Sea, was unable to afford the usual assistance. In place of the *Bear*, arrangements were made with Mr. Minor W. Bruce to purchase the deer on the Siberian coast and deliver them to the Government at so much a head on the Alaska shore. Through a combination of circumstances, however, he failed to be able to carry out his contract, and the result was that no deer were purchased this season. It is perhaps as well that this attempt to procure deer through private parties from Siberia has so signally failed, as the men who were selected to live in Siberia and do the purchasing were not such as were competent to suitably represent the United States Government. Russia had kindly given permission to the United States to purchase, but would naturally expect that the agents for doing the work would be responsible men under the control of the United States Government. It is hoped that the Bureau of Education will, this coming year, be able to send its own agent on the field, and thus prevent any international complications arising from the misdoings or mistakes of agents not responsible to the Government. But while there was no increase to the herd from importation, there was a very gratifying increase by birth. Four hundred and sixteen fawns were born to the herds last spring, of which 357 lived.

At the Teller Station there were at the opening of the year 525 head. On the 14th of January, 1896, 130 of these were sent off to establish a new herd at Golovin Bay.

During the year 25 died from accidents received during transportation from Siberia. Upon the second trip of the *Bear* the steamer encountered a severe gale and the reindeer were thrown helplessly from side to side across the deck, resulting in dislocated joints and broken limbs and internal injuries, resulting in death. During the fall a hoof disease broke out in the herd, resulting in the death of 25. A portion of a diseased lung and liver was sealed up in alcohol, and has been sent to the Agricultural Department for a diagnosis of the disease and a possible remedy. (Appendix, p. 113.) Ten male deer were killed during the year for food. One hundred and forty-one fawns were born, of which 10 died. Of the 423 deer at the station on the 1st of July, 1896, 15 are claimed by the apprentice Taootuk, 11 by Kummuk, 7 by Sekeoglook, 4 by Woksok, 4 by Electoona, and 3 by Ahlook, making 44 that are the private property of the apprentices.

There are 7 head of female deer belonging to the Teller Station that are still in the herd at Cape Nome.

In the herd at Cape Prince of Wales there are 253 head, of which 84 are fawns born last spring. There are 5 herders or apprentices in charge of the herd. Some of the cows without fawns were milked, and the herd seemed to be prospering.

The Cape Nome herd numbers 218, of which 43 were born last spring. During the spring 11 were killed in an avalanche as they were feeding at the base of a mountain.

The two herds at Golovin Bay aggregate 206, of which 80 were born last spring. Of this herd, the apprentice, Martin, claims 12 deer, Tatpan 7, Moses 21, and Okweetkoon 10, making 50 claimed by the herders as private property.

The trip made in driving the herd from Port Clarence to Golovin Bay was a successful and interesting one, a full account of which is given by Mr. G. T. Howard. (Appendix, p. 105.)

During the year, at the Teller Station 22 deer were broken to harness, making 52 sled deer in the herd. Much time was given to the training of these deer for freighting and traveling purposes. Seventeen sets of harness were made, 14 freight sleds, and a number of snowshoes and skis. But little difficulty has been met with during the past year from the dogs.

DISTRIBUTION.

In the general plan of distribution it has been our purpose to supply the mission stations, partly in the order of their proximity to the central herd, that the new herds may be more conveniently supervised, and partly through the interest which the stations have manifested in sending their young men for training. Hence the first station to receive a loan from the Government was the Congregational, at Bering Straits, 60 miles away from the central station. The superintendent of that mission was for one year (1893-94) superintendent of the reindeer station and had around him a number of his young men as apprentices. About that time the report was maliciously circulated among the natives that they were not to receive any benefit from the reindeer; only the whites. To disabuse their minds, three of the more advanced of the native herders were loaned (January 31, 1895) 100 head of deer and sent off some 60 miles down the coast to Cape Nome by themselves. This was the beginning of the third herd.

Among the first stations to respond to the call for young men to learn the business was the Swedish station at Unalaklik, Norton Sound, and the St. James Episcopal mission on the Yukon. As the Swedish station was the next nearest to Port Clarence after the Congregationalists, and as they had had three young men in training, it was very proper that they should have the next or fourth herd, and while the *Episcopal station at Fort Adams is more remote than the Roman*

Catholic station on the Lower Yukon or the Presbyterian station on St. Lawrence Island, yet as that station had had an apprentice almost from the first in the herd, and was a central point for the establishment of reindeer among a different race of people in Alaska, it seemed appropriate to give the fifth herd to them, which was done.

In arranging plans for the distribution of the domestic reindeer in Alaska, so far as the native population are concerned, I have looked to the missionaries settled among them for cooperation and assistance.

They are the wisest and most disinterested friends the natives have. From their position and work, having learned the character and needs of the people, they can wisely direct the transfer of the ownership of the deer from the Government to such of the natives as have been trained in the care of the deer.

And in order that the herders should have, in the infancy of the business, the continued oversight of experienced herders and the teaching in methods of handling by the most competent instructors, it is important that with every new herd sent out there shall also be sent a competent Lapp. In accordance with this purpose, the several missionary organizations at work in arctic and subarctic Alaska were last spring corresponded with by this office. (See Appendix, p. 119.)

In the commencement of the work it was anticipated that all the mission stations would have ere this been furnished a loan of reindeer, but the increase through purchase in Siberia has been much smaller than was anticipated. Instead of being able to purchase a thousand or more head a year, the average increase by purchase has only been about 150 a year. This necessarily delays the distribution of deer, as it is not good policy to weaken unduly the central herd at Port Clarence, and of course we can not distribute more than we have.

It is as important to teach the natives just emerging from barbarism how to earn an independent support as it is to give them book instruction. The industrial pursuit which nature seems to have mapped out for the native population of arctic and subarctic Alaska is the breeding and herding of reindeer and the use of the deer as a means of transportation and intercommunication.

During the past season the influx of miners into the Yukon has made a very urgent call for reindeer for freighting purposes. In the original plan for the purchase and distribution of reindeer reference was mainly had to securing a new food supply for the famishing Eskimo, but it is now found that the reindeer are as essential to the white men as to the Eskimo. The wonderful placer mines of the Yukon region are situated from 25 to 100 miles off of the great Yukon River. The provisions brought from the south and landed upon the banks of the river are with great difficulty transported to the mines. So great was the extremity last winter that mongrel Indian dogs cost \$100 to \$200 each for transportation purposes, and the freight charges from the river to the mines, 30 miles, ranged from 15 to 20 cents per

pound. (Appendix, p. 132.) The difficulty experienced in providing the miners with the necessities of life has demonstrated the necessity of reindeer transportation, and that the development of the large mining interests of that region will be dependent upon the more rapid introduction of reindeer for freighting. There are no roads in Alaska and off of the rivers no transportation facilities to any great extent. In the limited traveling of the past, dogs have been used for that purpose, but dog teams are slow and must be burdened with the food for their own maintenance. On the other hand, trained reindeer make in a day two or three times the distance covered by a dog team, and at the end of the day can be turned loose to gather their support from the moss, which is always accessible to them.

W. H. Gilder, of the Century, in his trip across Siberia to telegraph to the Navy Department the burning of the United States naval vessel *Rogers* in St. Lawrence Bay, Siberia, 1882, says in his book, *Ice Pack and Tundra*, page 190:

During a portion of the route we had horses for draft animals and at other times reindeer. I much prefer the latter, because so much fleetier and so much more docile.

Last spring an application was received from the United States Treasury Department for the placing of 40 reindeer on the Seal islands, and arrangements were made for complying with the request; but before the arrangements could be carried out I received a protest from the North American Commercial Company, who are the lessees of the islands, as they feared that the reindeer would disturb the seal upon the rookeries. Consequently nothing was done in the matter. (Appendix, p. 135.)

A number of influential parties, several being in the United States Congress, have expressed an earnest wish that a few reindeer might be placed upon each of the larger islands of the Aleutian group to provide a food supply for any crew that may hereafter be wrecked on those islands, and prevent the repetition of the starvation and cannibalism which occurred in 1894 on Umnak Island, one of the Aleutian group, in the wrecking of the whaling bark *James Allen*. When, June 14, the United States revenue cutter *Bear*, upon which I was a passenger, found the survivors, there were nine left in a hut, crazed with starvation. They were gathered around the fire with a pot of human flesh on cooking, which they had cut from the body of a man who had died and been buried two weeks before. Upon perceiving the rescue party they gave a feeble hurrah, and, laughing and crying by turns, remarked that they were sorry to say that they were cannibals, but that starvation had stared them in the face and they were compelled to resort to the flesh of their dead companions for food. They reported that Gideon had died June 7, and they had eaten him. When he was gone, they had dug up Pena, who had been buried on May 30, and were now (June 14) eating him. When they reached the

ship they were so weak that some of them had to be carried and all of them helped to the fore-castle, where the clothes, swarming with vermin and reeking in filth, were cut off of them and thrown over-board. They were then thoroughly washed and their hair cut. When stripped of their clothing their emaciation showed their suffering.

Requests have also come from parties who have leased some of the Alaska islands for the purpose of raising foxes. They are anxious in connection with their fox ranches to try the experiment of raising reindeer for the market. (Appendix, p. 137.)

In *Ice Pack and Tundra*, page 179, W. H. Gilder, speaking of the people of northeastern Siberia, thus testifies to the value of reindeer meat as a food:

Reindeer meat is also eaten by those who can afford it, unless rich enough to eat beef, which they prefer, though why I could never discover, for the meat of the reindeer is much more delicate and tender, and has a peculiarly delicious flavor, probably derived from the fragrant moss that constitutes its food. It is cheap enough to satisfy the most economical housekeeper, a fine fat buck, entire, costing at Nishne Kolymsk only 3 rubles, that is \$1.50, and at Sradnia 5 rubles. The meat of the reindeer is always excellent, while the beef is more expensive, and is only exceeded in price by the horse, which is a luxury only to be indulged in by the rich.

I am in full sympathy with all these requests for the distribution of reindeer in widely separated sections of Alaska. The more widely they are distributed and the larger number of interests that are subserved by them the greater good will be accomplished and the larger the constituency of those who will take an interest in this new industry.

The vast territory of central and arctic Alaska, unfitted for agriculture or cattle raising, is abundantly supplied with the long, fibrous white moss, the natural food of the reindeer. Taking the statistics of Norway and Sweden as a guide, arctic and subarctic Alaska can support 9,000,000 reindeer, furnishing a supply of food, clothing, and means of transportation to a population of a quarter of a million.

Providence has adapted the reindeer to the peculiar conditions of arctic life, and it furnishes the possibilities of large and increasing commercial industries. The flesh is considered a great delicacy, whether fresh or cured. The untanned skin makes the best clothing for the climate of Alaska, and when tanned is the best leather for the bookbinder, upholsterer, and glove maker. The hair is in great demand, by reason of its wonderful buoyancy, in the construction of life-saving apparatus. The horns and hoofs make the best glue known to commerce. With Alaska stocked with this valuable animal, the hardy Eskimo and the enterprising American would develop industries in the lines indicated that would amount to millions of dollars annually, and all this in a region where such industries are only developed enough to suggest their great possibilities.

The term for which the Lapps contracted to serve the United States has expired. They have so fully proved their efficiency, justified

their employment, and made themselves so necessary that their services can not be dispensed with without injury. An effort is being made to induce them to remain in the country longer, and there is a reasonable prospect that, after returning to their native land, they will close out their business affairs and return to Alaska as permanent settlers. If a few additional families of Lapps can be encouraged to accompany them it will be a great boon to the rising reindeer industry. (Appendix, p. 115.)

Reindeer Lapps are of two classes—one who give their entire attention to the raising of reindeer, and the other who give their whole attention to freighting and transportation. The latter class in the old country seldom raise the reindeer which they own, but are accustomed to purchase from the breeder, then train and use entirely for freighting. We are very fortunate in having both classes among the seven Lapp men in Alaska. Two of the seven are trained freighters, and it is proposed to allow them this coming season to go to the mines and demonstrate the usefulness of the reindeer in that region for transporting freight and furnishing rapid communication for passengers and mail. With the introduction of a larger number of deer, suitable for freighting purposes, it will be necessary to secure a larger number of experienced Lapps from the old country, as it will take a series of years before the natives can be so far trained that they can be trusted to freight on their own account.

At the request of this office, through the Secretary of the Interior, the Secretary of State has communicated with His Imperial Majesty the Czar of Russia, requesting permission for this office to place a purchasing agent, with one or two herdsman, at some suitable point on the coast of Siberia adjacent to Alaska. (Appendix, p. 125.)

At the request of the Department of the Interior in 1892, permission to purchase reindeer on the Siberian coast was obtained through his excellency the Russian minister resident at this capital. But experience has shown that unless the deer are purchased beforehand and collected at one point on the coast the United States steamer is delayed too long in the process of effecting these preliminaries, and the consequence is that the short season in which the transportation of reindeer is possible in these northern seas passes away with slender results. The average purchase has been considerably less than 150 reindeer per annum during the past four years. It will be easy to double the number annually, provided the purchasing and collecting of deer can be performed by some party in advance.

The scarcity of food in places continues periodic, and much suffering, with loss of life, must ensue while the present slow process of introducing a new food supply into the country continues. Missionaries of all churches on the ground unite in testifying to the need of more speed. (Appendix, pp. 126 et seq.)

A few years of larger appropriations on the part of Congress would

purchase and place in Alaska two herds of 5,000 each, the natural increase of which would perpetuate and extend the stock until the whole country is covered.

THE ITINERARY.

Leaving Washington on May 14, 1896, for my annual inspection of the schools and reindeer stations in Alaska, Seattle was reached on the 29th of the same month. The following two days, exclusive of an intervening Sabbath, were spent in looking after the procuring and shipment of supplies for the various schools, and on June 2 I took the steamship *City of Topeka* for Sitka, visiting en route the schools at Fort Wrangel, Juneau, and Douglas Island, reaching Sitka on the 8th of June. Five very busy days were given to the several schools at Sitka. Through the courtesy of Capt. C. L. Hooper, commanding the Bering Sea fleet, arrangements were made by which I was allowed to take passage on board the United States revenue cutter *Bear*.

On the morning of June 13 I went on board the *Bear*, which got under way at 10 minutes after 11 o'clock a. m., and proceeded out to sea bound for Bering Sea and the Arctic Ocean. The seven-day voyage to Unalaska was unusually pleasant—the sea was smooth, the wind favorable, and we made a quick trip. Through the whole trip I found the officers both obliging and companionable.

The ship's roster reads: Francis Tuttle, captain; David H. Jarvis, first lieutenant and executive; Claude S. Cochran, second lieutenant; William E. W. Hall, second lieutenant; H. G. Hamlet, third lieutenant; Charles S. Coffin, chief engineer; Harry U. Butler, first assistant engineer; Henry K. Spencer, second assistant engineer; Robert Lyall, surgeon.

In the early morning of the 18th, meeting the revenue cutter *Rush*, bound for Sitka, we availed ourselves of the opportunity of sending back letters to friends in the States. At 10.20 a. m. of the same date we dropped anchor in Delaroff Harbor (Unga). Going ashore, I had an opportunity to visit the schoolhouse and teacher's family; also to meet some of the pupils. The teacher had taken a sailing vessel to Puget Sound for his vacation. While at anchor the Alaska Commercial Company's steamship *Bertha* arrived from San Francisco laden with supplies for various trading and mission stations, and among the passengers were a number of missionaries. At noon we were again under way, calling at Sand Point for about an hour. Leaving Sand Point and passing through Popoff Strait, we were in sight of Pavloff Volcano, which was vigorously throwing out huge puffs of black smoke from its crater.

At noon on June 19 we steamed through Unimak, passing into Bering Sea. That afternoon, sweeping rapidly by the head of Akun Island, we were soon off the north point of Akutan Island. Horizontal bands of red rock alternating with yellow and green rings, bright

in the rays of the setting sun, gave a foreground of wondrous beauty. In the background towered Akutan Volcano, its sides covered with snow, portions of which were discolored and shaded by a recent shower of ashes. Occasional puffs of light vapory smoke arose from the crater and slowly rolled off into space. At the western end of the island a remarkable pillar of rock, with perpendicular sides and level top, arises out of the sea, while, to complete the marvelous picture, on the east a cloud of fog was seen rolling over a high ridge and down the precipitous sides of a mountain, giving it the appearance of a vast cataract—a score of Niagaras united in one. It was a scene of a lifetime and never to be forgotten.

At 11.20 p. m. of the 19th we dropped anchor in Dutch Harbor. It was the first time during fourteen trips that I was permitted to reach Unalaska without being seasick. Ten days were spent at Unalaska and Dutch Harbor in looking after and arranging for the educational work at Unalaska, and also the several points on the coast of Bering Sea and the interior of Alaska. The next day the steamship *Bertha* arrived from San Francisco having the following persons on board: Rev. and Mrs. H. A. Naylor, Rev. Frederick F. Flewelling, of the Church of England, en route for the Church of England's missions on the head waters of the Yukon River, a distance from their English home of about 11,200 miles; the Rev. S. H. Rock, and Dr. and Mrs. J. H. Romig, of the Moravian Church; the former was en route to Carmel, on the Nushagak River, and the latter to establish medical missions on the Kuskokwim River; the Rev. Paschal Tosi, vicar apostolic; the Rev. James M. Cataldo and Brother Pietro Branesli, of the Roman Catholic Church, en route to their missions upon the Yukon River; the Rev. and Mrs. Jacob Kortchinsky, of the Russo-Greek Church, en route to their mission at St. Michael.

Attracted by the herring or other small fish, the harbor was full of whales, a dozen of which played around the ship and could easily have been shot from the deck.

On June 24 we escorted to the steamship *Homer* Prof. and Mrs. John A. Tuck, who were leaving Unalaska to return to the States. A large number of friends, whom they had made among the natives, were also at the wharf to bid them godspeed. They have done faithful, efficient, and self-denying work during the seven years they have labored in Unalaska.

The Methodist Episcopal missionaries at Unalaska took the occasion of the presence of so many missionaries and teachers to give their own school a picnic, to which all the visiting missionaries were invited. This was held on a mountain side on the afternoon of the 26th, and was a very enjoyable occasion.

On the 29th, by direction of the Secretary of the Interior, with the assistance of sailors furnished by Capt. Francis Tuttle, commanding the revenue cutter *Bear*, I selected and marked out the land necessary

for Government school and mission purposes in the proposed town site of Unalaska.

On June 30, the revenue cutter *Rush* having arrived from Sitka with mail for the fleet, at 9.50 p. m. the cutter *Bear* got under way for St. Lawrence Island, the reindeer station, and other points in Bering Sea and the Arctic Ocean.

On July 3 at 2.30 o'clock p. m. we met our first ice, in latitude $59^{\circ} 51' 15''$ and longitude $170^{\circ} 9' 55''$. Keeping off about 2 miles from the ice we steamed parallel with it for the next 100 miles. It was a part of a large ice floe that extended from St. Matthew Island across Bering Sea to Nunivak Island. That night we passed through considerable ice drift, being spurs from the main floe.

On July 4, in the midst of a dense fog somewhere off the south end of St. Lawrence Island, the ship was decorated with flags, and at noon a salute of 21 guns was fired. Working the ship slowly through a dense fog and broken ice during the night and the next forenoon, we reached and came to anchor off the village at the extreme northwest corner of St. Lawrence Island.

Soon our ship was surrounded with boatloads of natives, and among them came Mr. Gambell, the teacher at that island, receiving his annual mail (for this is one of the several stations in northern Alaska that has but one mail a year). I went ashore with him to inspect the station and school. My stay on shore, however, was cut short by the surf commencing to rise and threatening to prevent my return to the ship. All haste was made to reach the ship, which was already, under the influence of the storm, dragging her anchor. The anchor being lifted, the ship's station was changed to the south side of the point, but the anchorage was very little better. In the meantime the sea had become so rough that it was with great difficulty the natives who had returned me to the ship were able themselves to make a landing through the surf. After watching them safely on shore, at 10.20 p. m. we got under way and steamed out to sea. The next morning, steaming through a large field of floating ice, we came to anchor at 6.35 a. m. off the village of Indian Point, Cape Tchaplín, Siberia. As usual upon the arrival of a vessel, the deck of the cutter was soon crowded with natives, some endeavoring to barter reindeer skins, furs, and curios, and others desiring to see the ship's surgeon.

The annual cruise of the revenue cutter along that northern coast offers the natives the only opportunity during the year of the advice of an educated physician; consequently whenever the ship drops anchor all the sick and ailing that are able to be moved are gathered up from the village and neighborhood and brought on board the ship to see the doctor. Those who are unable to be moved are usually afterwards visited in their huts on shore and everything possible done for their help and relief. For the time being the ship becomes

a traveling hospital and dispensary. During our stay the captain and a number of the officers accompanied the surgeon on shore. At 4.05 p. m. we were again under way steaming through a field of drift ice that seemed to be running out of the bays north of the point. As we are in north latitude, where at this season of the year there is no night, it makes but little difference whether we are steaming or lying at anchor during the night. We rise by the watch and retire in the same way, the sun shining both when we go to bed and when we wake up.

On July 7, at 3 o'clock in the morning, we reached and anchored off South Head, St. Lawrence Bay, Siberia, and several boat loads of Tchutchchees came to the ship. This is one of the best points for procuring reindeer on the Siberian coast, and here we secured in former years the greatest number, but this season, as the *Bear* could not be spared for the purpose of transporting deer, we were compelled to notify the deer men that other vessels were coming later in the season for their deer. However, through a combination of circumstances, no ships went for the deer, greatly to our disappointment and that of the people.

In an hour we were again under way. Passing to the north of the Point, several large umiak loads of natives were seen coming out to sea to meet us, and the engine was stopped to allow them to come on board. The same message concerning the purchase of reindeer was communicated to them. At 5.40 a. m. we were again under way, headed for the reindeer station at Port Clarence, which we confidently expected to reach that evening (alas for human confidence, it was nineteen days before we finally reached that station). But at 1.20 p. m. we got into the ice and had to slow down speed. To add to our troubles, so dense a fog set in that we could scarcely see the length of the ship. Two or three times during the night the engine was stopped until the fog should lighten up a little—occasional glimpses only revealed heavy ice all around us. After a night of great anxiety the captain anchored at sea the next morning at 7.30. At 9.50 a. m. the fog lifted a little, the anchor was hoisted, and another attempt made to work through the ice and get into Port Clarence. At 3 p. m. the fog again lifted a little, and from the crow's-nest at the masthead it was seen that the ice was densely packed all the way across from Cape York to Cape Douglas, that the original ice of the previous winter was still unbroken in Port Clarence, and heavy ice floes were packed together from the entrance of Port Clarence 8 miles out to sea.

Realizing the impossibility of making any progress toward land, the captain determined to run down to Kings Island and land a family of natives belonging to that place that he brought over from Siberia. Upon approaching the island he was surprised to find at anchor under the lee of the land the steam whalers *Orca*, *Thrasher*, and *Narwhal*, the whaling schooner *Rosario*, and the coal bark *J. P. Peters*. A heavy fog

enveloped the island. Anchor was dropped in the midst of the whaling fleet at 7.20 p. m. The whalers, unable to get into Port Clarence (the first time in fifty years at this season of the year), had taken refuge in the lee of Kings Island and were coaling ship. That night, a storm arising, two of the whalers lost their anchors and were compelled to put to sea to save going on the rocks. While lying at anchor at Kings Island, in company with Captain Tuttle, I called upon the several captains of the whaling fleet. Captain Smith, who had wintered at Ilerschel Island, narrated an incident where the children of an old man, being tired of caring for him, had removed all their belongings and provisions from the hut, leaving their old father to starve or freeze to death. The sailors, learning the situation, kept the old man supplied with provisions through the winter, and the following spring he died from natural causes. Among the wild Eskimos of the Arctic, both on the Alaskan and the Siberian coasts, it is considered a kindness and neighborly act to kill an old person, or one that is chronically sick without prospect of ever being well again.

While Captain Smith was on the coast of Siberia, a native who had made up his mind to change his residence to another section of the country had an invalid daughter who, with their appliances, could not be moved. Instead of remaining in his old home and caring for that daughter, he and his sons packed up all the family belongings and supplies on their dogsleds, hitched up their dog teams, and when everything was ready for a start, they went into the hut and stabbed the daughter to death. At the island where we were anchored, a few weeks before our arrival, a man who had been sick a long while adjusted a cord around his own neck and then asked his neighbors to pull him up until he was strangled to death; he wanted to die, and, as good neighbors, they assisted him in accomplishing his wish.

On July 10, the weather having somewhat cleared, a large number of Kings Islanders came on board. They crawled down the precipitous sides of their island home to the water's edge like so many ants, and launching their one-hole bidarkas through the surf came off to the ship in droves. During the day, on hearing a report that the teacher at Cape Prince of Wales had had some trouble with the natives, and as we had his yearly mail on board, Captain Tuttle concluded to make an attempt to reach him, and at 10.45 got under way. Upon coming within sight of the place at 3.15 p. m., a large ice floe was found moving against the village, making it impossible to land. Nothing could be done but turn and steam for another anchorage.

The ice still blocking up the entrance to Port Clarence, the ship was headed for St. Michael, and we found to our regret that the immense ice floe which we had been in vain attempting to penetrate in order to get to the Teller Reindeer Station extended all the way down the coast to Cape Nome, a distance of 180 miles, so that in going to St. Michael the ship was forced by the ice floe 50 miles south of its true course.

There was, however, a good providence in this, as it led the captain to find the brig *Geneva* dangerously situated in the ice and to tow it safely into St. Michael. On the morning of the 22d of June the steamer *Bertha* had taken the *Geneva* in tow for St. Michael, a trip of five or six days. But after battling for nearly three weeks with the ice the captain left the schooner at sea until the steamship could force her way through the ice to St. Michael, unload, and then return for the schooner. However, providentially for the schooner she did not have to wait, but was picked up and towed to a place of safety before being crushed.

All through July 11 and 12 our steamer kept along the edge of the great ice floe, the weather thick with fogs and snow squalls until the latter part of the afternoon of the 12th, when the snow squalls were succeeded by a drizzling rain. At 10.10 p. m. we anchored off St. Michael. Going ashore on the forenoon of the 13th, we found mosquitoes in swarms.

July 15 Captain Tuttle took the *Bear* up the coast to enable me to visit the school and Swedish mission at Unalaklik. In previous years, when requesting to visit the place, I had been told that the water was too shallow for an ocean steamer. Upon making the attempt, however, we found no special difficulty; the day was perfect, bright, sunshiny, no wind, smooth water. The captain had invited a select company from St. Michael to accompany us. At 2.50 p. m., anchoring off the village, Lieutenant Jarvis took the party in the steam launch close to the shore, where we were transferred to rowboats to make a landing. Although it was vacation time, the school bell was rung and the children called in that I might have an opportunity of seeing them at work. The mosquitoes, however, were so bad that the visiting party became anxious to get off shore, and I did not have as much time as I would have liked. Returning to the ship, we hoisted anchor and sailed for St. Michael, which we reached at 1.50 the following morning.

In the harbor at St. Michael we found the Yukon River steamer *Portus B. Weare*, the ocean steamer *Bertha* and bark *Geneva*, of San Francisco, and the small steamers *William Seward*, *Explorer*, *Koyuk*, and *Yukon*, and the schooner-rigged yawl *Edith*.

On July 21 the American brigantine *C. C. Funk* arrived from San Francisco and the steamer *Arctic* came down the Yukon. Among the passengers on the *Arctic* were Rev. and Mrs. T. H. Canham, Miss Macdonald, and Mrs. Bishop Bompas, all of the Church of England missions; Mrs. Dr. Glenton, of the American Episcopal mission; Mr. and Mrs. Harper from the Pelly River Trading Station, and Mr. William A. Beddoe, of Chicago, contractor for the mail route between Juneau and Circle City; Mr. Omer Maris, correspondent of the Chicago Record, and Mr. H. De Windt, correspondent of the Pall Mall Gazette, *London*. The cutter *Bear* had instructions to convey the latter to

Siberia, where he proposed making a land journey across to Europe. I have since learned that his plan miscarried, and he came down later in the fall on a whaler to San Francisco, returning to Europe across the United States and the Atlantic instead of across Siberia. It was reported so healthy in the Upper Yukon Valley, just below the Arctic Circle, that although white women have been in that section for fifty years as wives of missionaries and fur traders, only one had died during that time in the district—Mrs. Bell, wife of Captain Bell, of Fort Simpson, on the McKenzie River. Such an unusual occurrence caused much comment among the people.

The missionaries reported that the gold mining at Circle City was making rapid progress. During the present season both the Protestant Episcopal and the Roman Catholic churches have established missions at that place and proposed hospitals. Last winter the first public school ever held in Circle City was established by the miners and taught by a volunteer teacher, Mrs. Dr. Yates. The school lasted three months, January, February, and March, 1896, with 30 pupils. The Episcopalians have paid \$1,300 for an unfinished frame building, and have also bargained for an additional lot at \$800. A corner lot 50 feet front and 100 feet deep sold this spring for \$2,500 in gold; another lot 30 feet front and 50 feet deep, with an uncompleted two-story building, sold for \$7,000 in gold. Half the buildings in the place are saloons, and liquor costs 50 cents a drink. Last winter the place contained 560 white inhabitants; this summer, 1,150, of whom 200 are permanent residents in the village and the others scattered among the adjacent mines. There are about 40 white women in the district. Last winter the thermometer registered at 5 p. m. 66° below zero for three weeks at a time. During the entire month of January the average temperature was 46° to 48° below zero. At Mastodon mines the thermometer last winter registered 76° below zero, and this summer 103° above zero.

The valley of the great Yukon River is being fairly well supplied with missionaries. Belonging to the Church of England are Rev. and Mrs. T. H. Canham and Miss Mellett, on the Porcupine River; Rev. B. Totty, at Fort Selkirk; Bishop and Mrs. Bompas and Miss Macdonald, at Forty-mile Creek. In the service of the Protestant Episcopal Church are Rev. and Mrs. J. L. Prevost, at Fort Adams; Rev. and Mrs. J. W. Chapman, Mrs. Bertha W. Sabine, and Miss Mary V. Glenton, M. D., at Anvik. In the employ of the Roman Catholic missions are Right Rev. Paschal Tosi, vicar apostolic; the Rev. A. Robant, the Rev. F. Barnum, the Rev. Monroe, with lay brothers Marchisio, J. T. Sullivan, and J. Negro, together with ten sisters, at Kosoriffsky; the Rev. William Judge, the Rev. A. Ragaru, and lay brothers C. Gioarano and J. Rosetti, at Nulato; the Rev. J. Treca, the Rev. A. Parodi, and lay brothers B. Cunningham and J. Twohig, at Cape Vancouver. Those belonging to the Russo-Greek Church are

Rev. Belkof (retired), at St. Michael; the Rev. Johannes Orloff, at Ikogmute, Yukon River, and Rev. and Mrs. Jacob Kortchinsky, for St. Michael and Paul's village, St. Sergius. Belonging to the Swedish Evangelical Church are Rev. and Mrs. A. E. Karlsen; Miss Malvina Johnson and David Johnson, teachers at Unalaklik; Rev. August Anderson, Rev. and Mrs. N. O. Hultberg, and Mr. and Mrs. Frank Kameroff, at Golovin Bay; and Mr. and Mrs. Stephan Ivanoff, at Koyuk.

During the evening of July 22 the steamship *Bertha* sailed for San Francisco with 125 passengers and a mail to our friends. Learning that the Swedish mission at Golovin Bay was out of food, Captain Tuttle very kindly offered to go to their relief, and I at once made arrangements with the Rev. A. E. Karlsen, Swedish missionary at Unalaklik, who is in charge of their stations, to procure the necessary supplies for the relief of the station at Golovin Bay. While I was on shore making these arrangements, the steamship *Portland* arrived from Seattle with a later mail and newspapers. She also brought lumber and workmen for the construction of a river steamer for the North American Trading Company. The Alaska Commercial Company are also building a new river steamer and some large barges.

The development of the Yukon gold mines is greatly stimulating trade through all this country.

Having received on board the supplies for the relief of the Swedish station, we hoisted anchor at 9.55 p. m. and put to sea. At 7.10 the following morning we were at the entrance of Golovin Bay, but a gale having arisen, the sea was too rough to land stores, and as there was no sheltered anchorage we were compelled again to go out to sea, where we hove to, riding out the storm; a most miserable day.

On the morning of the 25th we again skirted the bay and were able to make an entrance, dropping anchor at 6.40 a. m. Upon the slope of the west bank of the bay the reindeer herd was clearly visible from the ship; also the native village on the end of the eastern spit. Having finished breakfast, at 8.15 a. m. Dr. Lyall, the physician, and myself were sent to the village in a boat in charge of Lieutenant Hamlet. A fair wind made it a pleasant sail. On our way we were met by Mr. Hultberg, the missionary, and Mr. Dexter, the trader, coming to the ship. They were taken aboard our boat and returned with us to the village, where they tried to engage all the natives with their uniaks and send them off to the ship to bring in the stores and supplies. Some friction having arisen between the trader and the mission with regard to the location of the mission buildings, I staked off a plat of vacant ground around the mission buildings, having first informed Mr. Dexter, the trader, and invited him to accompany and counsel with me. As some of the reindeer apprentices have tried to dispose of their private deer to the trader, I left him a formal notification that they were not allowed to sell. While we were on shore

the wind freshened, and we found it rough and dangerous getting back to the ship. Many natives who had started out in their umiaks had returned to the beach, being unwilling to venture in the rough sea. When we reached the ship, at 1 p. m., the captain got under way and moved in to the western shore, somewhat sheltered from the wind and the waves. From our new anchorage the supplies were speedily landed, and as the storm was still heavy and our anchorage in the open roadstead insecure, the ship got under way at 4.43 p. m. and stood out to sea.

On Sunday evening, July 26, at 8.35 p. m., we dropped anchor in Port Clarence, near the mouth of which we had been over two weeks before. At anchor in the harbor was the schooner *Ida Schnauer*, of San Francisco, Captain Neilsen in command; also the whaling schooners *Bonanzu* and *Rosario*. The schooner *Ida Schnauer* had on board the supplies for the reindeer station and several of the schools and missions, together with Mr. Lopp and family, who were returning to their stations at Bering Straits, and Mr. Kjellmann of the reindeer station. Soon after dropping anchor Mr. Lopp came on board and remained until midnight.

At 8.40 a. m. on the 27th the *Bear* got under way and moved up to the Teller Reindeer Station, where supplies, barter goods, and mail were sent on shore, after which, at 11.35 a. m., anchor was hoisted, and we crossed to the south side of the bay to the watering station near Cape Riley. While the ship was absent watering I remained at the reindeer station, and with Mr. Widstead took an inventory of the public property. At 11.15 a. m. the schooner *Ida Schnauer* anchored off the station and commenced discharging freight. We all worked far into the night. As the year before the brig *W. H. Myer*, that had on board the supplies for the missions and schools, was forced ashore and wrecked in front of the reindeer station (the natives claiming through the power of their medicine man), the Eskimos made the night hideous by their drums and howlings as they tried to invoke another storm and secure the wreck of the present vessel.

The next day was indeed stormy, with a very heavy surf, but the schooner did not come ashore; she, however, was unable to land any freight at that time, and found it necessary to go into deeper water. Having finished the inventory and looked over the station, I appointed Mr. William A. Kjellmann superintendent in the place of Mr. J. C. Widstead, removed. As the storm kept up all day, preventing the landing of any supplies, various conferences were held with different employees, and the work of the station mapped out for the coming year. The storm that prevented the landing of supplies also prevented the return of the cutter, and as the employees at the station had no extra furniture and did not suppose that they needed to make any provision for visitors at that station, with one communication with the world a year, the physician and myself had to sleep on the

floor in the drug room. The employees, however, did the very best they could to make us comfortable.

On the 29th, the sea being still rough, no goods were landed, but at 3.55 p. m. the *Bear* returned and anchored off the station, allowing us to return to our quarters on ship. As Captain Tuttle was anxious to start northward, I returned on shore and worked until late in the night closing accounts with Mr. Widstead and the Lapps. The surf was so rough that but for the hull of the wrecked *Meyer* making a shelter I would not have been able to have got through and returned on board ship. Early in the morning Mr. David Johnson, a Swedish missionary from Unalaklik, and his native assistant came on board by permission of the captain to go to Kotzebue Sound, where they hoped to be able to establish a new mission. Two of the Eskimo apprentices, Ahlook and Electoona, were taken on board for a visit to their relatives at Point Hope. At 6.10 a. m., July 30, the ship was under way, stopping a few moments as we passed out of Port Clarence to communicate with the schooner *Bonanza*. At 2.40 p. m. we were steaming by the village at Cape Prince of Wales, but as there was too much surf for landing we passed on, entering the Arctic Ocean with pleasant weather.

July 31, while skirting the Alaska coast north of Bering Straits, the ship anchored at 10.25 a. m. to allow some natives to come on board for medical attention. At 6.15 p. m. resumed our trip; during the night, reaching drift ice, anchor was dropped at 11.10 p. m. All night heavy drift ice surrounded the vessel.

At 6.35 a. m. August 1, starting up the engines the ship worked its way through heavy ice until 8.30 a. m., when we anchored off Cape Blossom, in Kotzebue Sound. Soon several boat loads of natives came on board, among them being the uncle of Mr. Johnson's interpreter. During the day, the storm increasing, the natives were unable to leave the ship. In the afternoon and evening the rain and sleet of the morning turned to snow and continued during the night. The drift ice, which was scouring the sides of the vessel, increasing in volume, making it dangerous to longer remain, and the storm of the previous day having somewhat abated, about 6 o'clock in the morning of August 2 the natives started for shore, accompanied by Mr. David Johnson and his native assistant of the Swedish Evangelical Union Mission Society. Mr. Johnson was landed among these wild people without a house to shelter him, without anything to build a house from, with no protection of courts, policemen, or government within 1,000 miles, with nothing but a few pounds of provisions for the winter, throwing himself upon the barbarous people among whom he expected to work. His strong, heroic faith made an impression upon the officers and crew of the ship. The natives having left, at 7.10 a. m. the cutter *Bear* got under way, and at 5.52 p. m. rounded Cape Krusenstern. The day was misty and stormy, with frequent snow squalls and heavy ice.

On Monday morning at 6.30 the officer on deck discovered a brig ashore. At 7.10 a. m. we passed Cape Thompson, and at 9.15 a. m. we were abreast of the wrecked bark, which was found to be the whaler *Hidalgo*, Capt. C. A. Gifford master. An officer was sent ashore and soon returned, reporting the vessel a complete wreck and abandoned, the crew being quartered at one of the whaling stations south of Point Hope. At 10.25 a. m. the ship steamed ahead, and at 11.10 anchored off one of the whaling stations, 7 miles below Point Hope, to communicate with the wrecked crew. Various parties, whalers and natives, were soon on board. At 1 p. m. anchor was hoisted and we steamed around to the north side of the spit, and at 2.45 p. m. anchored off the village of Point Hope. In the harbor were the whaling schooner *Rosario* and the bark *Mermaid*. The captain kindly sent the physician and myself immediately ashore with the annual mail for the Episcopal mission station. The grounded ice made it very difficult and dangerous landing. We were able, however, to reach the beach at the lower end of the village, and then had a long, hot walk to the mission. As Dr. Driggs, the missionary, had been home from the States but a few days, we did not remain long. During the afternoon, Captain Gifford, of the wrecked whaler, came on board the *Bear* and asked passage to Unalaska, which was granted him. Having transacted the necessary business at Point Hope, at 5.35 p. m. the anchor was hoisted and the ship passed around to the whaling station on the south side of the spit, where we anchored at 7.15 p. m. to enable Captain Gifford to secure and bring on board his personal effects. Having completed his arrangements and returned on board with his things, at 9.30 p. m. the *Bear* got under way for the far north.

All night long we steamed through floating ice, encountering light hail and rain storms. At 7 a. m. August 4 passed Cape Lisbourne, distant 5 miles. At 8.15 the ice, which had been light, became very heavy, and at 9.35 a. m., unable to proceed farther on account of the ice, we came to anchor off Point Lay.

August 5 another attempt was made to get northward. Getting under way at 2.40 a. m., we steamed for some distance along the edge of the ice, but by 4.10 a. m. found that we were in the midst of heavy drift ice. At 8.15, the ice becoming too heavy for progress or for safety, we came to anchor under Icy Cape. At noon, the ice floe closing in upon us, the ship got under way and proceeded slowly through heavy ice floes and thick fog southward until, finding comparatively open water near Cape Lay, it came to anchor at 5.55 p. m., the current setting strongly to the north. The next day we made our third attempt to get north, hoisting anchor at 2.40 a. m., but by 4.45 a. m. were again in the heavy ice, and at 7.56 a. m. were compelled to anchor on the south side of Icy Cape, the great ice floe forming a solid wall in front of us. Soon after some natives came on board and reported the ocean closed with ice up to Point Barrow. The drift

ice again closing in upon us, at 6.20 p. m. the anchor was hoisted and we were compelled to steam to the southward through heavy ice until 8.55 p. m., when we were able to anchor in clear water off Point Lay, near which we found already anchored the whaling barks *Horatio*, Captain Slocum commanding, and the *Alice Knowles*, Captain Ogden commanding.

During the night conferences of the captains were held, and Captain Gifford of the wrecked *Hidalgo* joined the bark *Horatio* as mate. As Sisyphus rolled his stone up the hill only to find it at the bottom the next day, the same toil to be repeated day after day, so every morning the cutter *Bear*, pushing for the north, would get fast in the ice and be compelled to return again to the south in the afternoon. Thus, on the 7th of August, at 5.35 a. m., the anchor was hoisted and another attempt made to get north. This time the captain concluded to steam southward and westward around and through the southern edge of the great ice floe, hoping to find open water outside to the westward. Passing north along the west edge of the ice floe we steamed through floating ice until 10.10 p. m., when the ice became too heavy to make further progress, and we repeated our daily experience of steaming southward until 11.30 p. m., when the propeller was stopped and the vessel allowed to drift with the ice. At 3.15 on the morning of August 8, the fog lifting, Point Belcher was seen about 15 miles away and we found that we had drifted northward during the night at the rate of 2 miles per hour. The weather clearing somewhat at 3.30 a. m., we again steamed northward through the ice. At 7 the masts of some whalers were seen to the north of us, and soon after the mission, buildings and whaling station at Point Barrow were sighted through the field glasses. Everyone was now in high glee, as we would soon be there, and, after discharging our duties at that place, would be able to face southward and homeward.

At 10 a. m. we were opposite the station, where some of the whalers had succeeded in getting in, when the ice had closed in upon them, and they were prisoners. But the opening that had let them in had, before our arrival, closed with ice, which stood a solid, impenetrable wall to bar any further progress on our part. We had got our mail out, our clean clothes on, in expectation of going ashore and seeing friends; but, alas, we could not get ashore; we could not even remain where we were, and nothing was left to do but to turn and steam southward to open water, which we did until 1.45 the next morning, when the engine was stopped and, it being too deep to anchor, the vessel was allowed to drift. To our astonishment, when the thick fog and rainy night had passed, we found that we were back opposite Point Barrow, having during the night drifted northward with the ice. Again we steamed through the drift ice along the edge of the main floe, looking for some channel through which we could force our way in and reach the station, but in vain; and again at 2 p. m. *we turned southward and west*, steaming through heavy ice until

midnight, when the engine was stopped and, as usual, the vessel allowed to drift.

August 10, at 5 a. m., the ship resumed her usual practice of bumping ice and forcing her way within sight of the desired haven, and then turning away and steaming southward, until 6.20 p. m., when we came up with the whaling barks *Horatio*, *Mermaid*, and *Alice Knowles*. The three captains soon came aboard to spend the evening, while the four vessels drifted around the sea. At 11.20 p. m. Mr. John Wells, mate of the wrecked brig *Hidalgo*, was taken on board the cutter *Bear* for transportation to Unalaska, provided we ever got out of the ice. The previous night having been spent as usual in drifting in the fog and the ice, at 9.25 a. m. August 11 some of the officers went in the second cutter to shoot walrus discovered asleep on the ice. They claimed to have shot three, but none were brought back to the ship. In the afternoon the officer of the crow's-nest having discovered some open water inshore, the vessel was forced through the heavy ice until the open water was reached, and at 3.40 p. m. the ship was anchored off Skull Cliff. Heavy drift ice was floating by us all night to the northward. On August 12, at 8.40 a. m., we started northward, reaching heavy ice at 10.07, and a few minutes afterward, came to anchor, unable to proceed. At 12.40, discovering a small lead in the ice, we were again under way, and at 2 p. m. anchored near Refuge Inlet. The day was stormy, raining and snowing by turns. The ice coming in too heavy for safety, at 10.55 p. m. the anchor was again hoisted and we turned southward, steaming for a safer location. Finally, at 11.10 p. m., the ship was fastened to the lee side of a large berg of grounded ice, where we lay very securely until the next day.

At noon August 13 an officer reported that he thought the vessel could get through the ice to Point Barrow. At 1.20 p. m. the moorings of the ship were cast off from the grounded ice and we commenced picking our way northward through the heavy ice with blinding flurries of snow and squalls of rain. This time (the ninth attempt) we made it, and at 4.25 p. m. the ship was secured to a grounded iceberg off Point Barrow Refuge Station. The berg was probably 6 miles long with an average breadth of half a mile; in places it was from 50 to 75 feet high above the water and went down under the water to the bottom of the sea. This great berg had come in from the sea eleven months before and had remained until our visit, the middle of August, and perhaps is still there. We found that the past winter had been an exceptionally severe one. On the 20th of December the thermometer registered 40° below zero and remained steadily below zero until the middle of May. During an ordinary winter at that point there are mild spells of weather, but last winter was very cold. The warmest weather during February was 38° below zero and the coldest 66° below. The average temperature for the month was 45° below. The extreme cold lasted through the winter until the 20th of April, when it was 37° below zero. From that

time on the weather continued to moderate until the middle of May, when the thermometer marked zero. Snow did not leave the ground until the 19th of July, and on the fresh-water lakes ice remained until the middle of August, a month later than usual. Spring plowing and gardening had not yet commenced at the time of our visit, the middle of August. The long summer day commenced on the 10th of May and lasted until the 4th of August. The long winter nights will commence the 19th of November and last until the 23d day of January.

Soon after making the ship fast to the ice, Mr. John W. Kelly, manager of the Pacific Steam Whaling Company's Station, and Mr. Charles Brower, of the Liebes Station, Mr. L. M. Stevenson, teacher and missionary, and Captain Aiken, superintendent of the Government Refuge Station, with others, came on board. A portion of the ice which had blocked the entrance to the roadstead had that morning moved to the northward, making a channel for our entrance. After dinner I accompanied Captain Tuttle on shore and made calls at the Government Refuge Station and the Presbyterian mission. When I left Washington in May, it was with the understanding on the part of the Presbyterian Missionary Society that their station at Point Barrow would be closed until a suitable man and his wife could be found for the work, as it had been found necessary for Mr. Stevenson to return to his family in Ohio. But as the Government had ordered the refuge station closed, and building and supplies to be sold to the Pacific Steam Whaling Company, it seemed better that Mr. Stevenson should be kept another year to look after the school and mission building. As he was out of supplies, Captain Tuttle very kindly advanced him 15 tons of coal, 150 gallons of coal oil, 4 boxes of navy crackers, and 16 sacks of flour, which were to be replaced by the mission society when the ship reached Unalaska. Other supplies for the mission were secured from the wardroom mess and the whaling station on shore, and Mr. Stevenson has remained at his difficult post another year.

To expedite the work of turning the Government station over to the whaling station, Lieutenant Jarvis with two sailors were sent on shore. As time was precious and our stay on account of the ice at Point Barrow uncertain, I again went ashore on the 15th immediately after breakfast and remained all day, looking after various matters connected with the school and mission at that northernmost station. Oozhaloo, one of the wealthiest, and most active Eskimos of the settlement, made application to be taken with his family to the Reindeer Station, where he desired to become an apprentice and learn the management and care of domestic reindeer. His application was an evidence of his ability and farsightedness. When a boy, if hungry, he could get into a kiak and go out and club a seal on the head in front of his home; now seals have become so scarce that but few are secured even with guns. When he was a boy, whales were always found in

the waters adjacent to his home; they remained there during the entire season of open water; now the few whales that are seen at all scurry past the village as if conscious that bomb guns were waiting to take their lives, and it is but rare that the natives get them. When he was a boy, if he wanted a change in his diet from whale blubber and seal meat, he could go just back of the village and shoot a deer with his arrow; now he finds it necessary to go 100 miles or more inland after caribou, and it is with difficulty they are secured by rifle and bullet. He sees that the food supply of the country is practically gone and that there is no future for his people unless a new food supply is furnished. This he sees to be through the introduction of domestic reindeer, and for himself and his family desires an early opportunity of learning how to have and care for the new food supply. As he was indorsed by the missionary, I agreed to take him, and securing permission from Captain Tuttle, brought him on board the ship with his wife Toakluk, his son Chowlock, daughter Neuta, and adopted daughters Kontelow and Ahlahle. Mr. John W. Kelly, who has been in the Arctic region for eleven years, also sought and received permission to return south with the *Bear*.

Having received on board the annual mail and finished our work at Point Barrow, at 3.45 p. m. August 15 the *Bear* got under way for the south, working slowly through heavy drift ice.

During the 16th Point Belcher was passed. The whaling schooners *Rosario* and *Mermaid* were met and their mail taken on board. All day the cutter *Bear* worked her way through the drift ice. On the 17th we finally got out of the Arctic ice into clear water, and after a most gorgeous sunset, at 11.50 midnight, anchored off the Corwin coal mine for fresh water. The forenoon of August 18 was consumed by the crew in getting fresh water. Two of the officers went ashore to hunt ptarmigan. While tramping over the tundra they found the tent, clothing, and skeleton of a white man; also his sled and other belongings. As no white man is known to be missing, and as neither natives nor white men in the vicinity knew anything about it, the dead man must have been a prospector who had come alone across the wilderness the previous winter, and, worn out, perhaps out of provisions, had starved and perished upon that bleak shore of the Arctic Ocean. Since his remains have been found, the people at Point Hope, 60 miles away, recall the fact that during the previous winter two unknown and half-starved sled dogs had come to the village.

Having watered ship, at 1.30 p. m. anchor was hoisted and we stood to the westward to round Cape Lisbourne, where we have always found a rough sea, and this year was no exception. At 10.30 a. m. the ship anchored off Cooper's whaling station, Point Hope, and the stores, the whalebone, and fifteen sailors of the wrecked schooner *Hidalgo* were received on board for passage to Unalaska; also the whalebone from the whaling bark *Guy Head*; also mails for the south were received.

from the whalers and the village. The herder Ahlook, whom I had brought to Point Hope to visit his friends, also returned on board, and at 5.30 p. m. the anchor was hoisted and we started for Kotzebue Sound. Passing Cape Krusenstern on the morning of August 20, about 6 p. m. in the afternoon we took in tow four umiaks with their loads of people en route to Kotzebue Sound, and at 9.30 p. m. anchored off Cape Blossom. During the night large numbers of natives came on board from shore, but as the sea began to be very rough, they left for land, and at 9 a. m. on the 21st the vessel got under way for shelter, which it secured at 2.25 p. m. near Choris Peninsula. We reached there at noon, none too early, as the storm had increased to a gale.

It had been expected that the steam launch would be sent to Elephant Point to investigate the unusual quantity of the bones of the mammoth which have been exposed by the elements at that point. But during the morning of August 22 the weather continuing stormy, and the gale apparently increasing, the captain concluded to go to sea, and at 11.15 a. m. we got under way and drove before the storm. At 5.50 p. m. Cape Krusenstern was abeam, and at 8.55 p. m. the west point of Cape Espenberg was abeam. During Sunday, August 23, it alternately snowed and rained, the wind blowing a gale. As the steamer could make no headway against the storm, we sailed with the wind, and were taken a long distance westward out of our course. At 11.25 on the 24th ice appeared ahead of us and all afternoon we steamed through heavy drift ice. About 5 p. m. East Cape, Siberia, loomed up in the distance through the fog, and as we approached it made a beautiful sight. East Cape and the Diomed Islands were covered with fresh-fallen snow from summit down to the water's edge. The ship attempted to make Whalen Village, Siberia, but found that the ice was packed from the shore 5 miles out to sea. We then turned and tried to make East Cape, Siberia, but again we were headed off by the ice, which was packed to sea 3 miles out from the cape. At midnight the captain gave up the struggle and allowed the steamer to drift, until the following morning he could make another attempt to reach East Cape. But with the coming of the morning, August 25, the situation was no better, and giving up the attempt to reach East Cape, the ship skirted around the south end of the ice floe, and at 8 o'clock came to anchor in clear water in the bight south of East Cape. A number of umiak loads of Siberians came on board to see the physician and do some trading.

At 11.10 a. m., the thick fog clearing up, the ship got under way and stood for the Siberian village on Ratmanoff Island, one of the Diomedes, where we anchored at 3.23 p. m. Three loads of Siberians came off to the ship. Stopping for an hour, we were again under way for the American side of the Straits, but at 5.25 p. m. stopped to receive a boat load of natives from the village on Krusenstern Island. At 5.50 p. m. we were again under way for Cape Prince of Wales,

reaching there soon after midnight. Being unable to effect a landing, the ship turned and put out to sea again for safety. With the morning light of August 26 the ship returned to the village of Cape Prince of Wales and anchored at 7.45 a. m. Shortly afterwards Mr. W. T. Lopp, the missionary, came on board with some natives. Immediately after breakfast Dr. Lyall, the physician, and myself went ashore with Mr. Lopp. The affairs of the mission and school were looked after, a number of natives were attended to by the physician, and at noon we returned to the ship. Soon after, the schooner *Ella Johnson*, John T. Smith master, anchored near by. Mr. Minor W. Bruce and party for trading for reindeer were on board. Accompanying Lieutenant Hall, I paid a visit to the schooner and had a conversation with Mr. Bruce concerning arrangements for securing reindeer. Upon returning to the *Bear*, I was greatly surprised to find that the sailing papers of the *Ella Johnson* were defective, and that not being properly registered the schooner could not go to Siberia and trade for reindeer, as was expected. This closed all hope of procuring reindeer from Siberia this year.

At 2.45 p. m. we got under way for Port Clarence. A dense fog having set in, at 10.30 p. m. the ship came to anchor at Point Jackson, at the entrance of the harbor. The next morning, the fog having lifted, at 5.40 a. m. the ship got under way, and at 8 o'clock anchored off Point Riley after fresh water. Having watered ship, at 2.45 p. m. the *Bear* got under way and steamed over to the Teller Reindeer Station, on the north side of the bay, where the captain kindly allowed me, together with the herders, Ahlook, Electroona, and Oozhaloo and his family, to land, after which the steamer ran down to Point Spencer for a sheltered place in which to make repairs and changes in her propeller. At the station we were very busy looking after the details of the business until after midnight. During the morning of August 28 Lieutenant Cochran came over from Point Spencer with the steam launch and, picking up Dr. Lyall, Mr. Kjellmann, Dr. Kittlesen, Mr. John W. Kelly, Mr. Wells, mate of the *Hidalgo*, three herders, and myself, steamed away for Grantley Harbor, to visit the reindeer herd. Landing about 11 a. m., we had lunch on the beach, after which we walked to the reindeer camp, 4 miles distant. It was a very hard walk. At the time of the arrival of the *Bear* an epidemic had appeared in the herd, causing a swelling and suppuration around the hoofs. A brush corral had been constructed and some 30 sick deer gathered into it. The two physicians of the party, with the herders, proceeded to give an examination, and a portion of the diseased heart and liver of one that had died was placed in alcohol to be sent to the Agricultural Department at Washington for expert examination.

As it had proved a very hard walk from the depot to the herd, the Lapps proposed to send me back by a sled drawn by the reindeer. The deer had not been hitched up all summer and were very frisky.

The result was that at the very first brook we came to they gave a leap, overturning the sled, throwing me out into the bushes, and nearly breaking away from the drivers. The sled was righted and I again got on. The rest of the way they took me along rapidly over the snowless tundra, across a mountain, through bunches of Arctic willow, up and down the steep sides of the ravines, and landed me safe and sound on the beach in an astonishingly short time. After lunch we embarked in the launch for the station. In the meantime the wind had changed and got up a rough sea which tossed and pitched the steam launch, greatly to our discomfort. Reaching the station at 7 o'clock, I went ashore, and the others continued on their way to the ship at Point Spencer.

August 29 dawned with a storm raging at sea and a heavy surf on the beach. As there was no going out or returning ashore, the day was spent without interruption looking over the affairs of the station. Sunday morning, August 30, came in with fog. The gale of the previous day had ceased. At 11 o'clock the bell was rung and divine service held in the schoolhouse. Thirty-three persons were present, comprising nine nationalities. There were Americans, Norwegians, Lapps, Ootkeavies, Tigaraits, Kinégans, Kaveans, Seelawiks, and natives around Norton Sound. The preacher spoke in English. The Rev. T. L. Brevig, Norwegian minister, translated the English into Lappish, and Dora, an Eskimo girl from Golovin Bay, translated the English into Eskimo, thus requiring three languages to reach the audience. It was an interesting and unique service.

Dora, the Eskimo interpreter, has had an eventful career. When born, she was thrown out of the house by her mother to freeze to death, the mother not wishing the trouble of bringing her up. An older sister took pity on the babe, brought her into the house, and assumed charge of her. After a while the sister became tired of her charge, and again the babe was thrown out of doors to perish. Then a neighboring woman took her in and brought her up as her own child. When she was about 12 years of age, she was sold to a man for his wife, but being brutally treated, she ran away and found an asylum at the Swedish mission. The mission was raided by the natives and the girl carried off by force. Again escaping, she was permitted to remain at the mission, where she has become a strong, fine-looking, intelligent, consecrated girl of about 17 years of age. At present she is living with Rev. and Mrs. Brevig at the reindeer station. As I rose from the dinner table the cutter *Bear* was seen steaming over from Cape Spencer. I was very sorry, as it would probably necessitate going on board ship on Sunday, thus setting a bad example to the natives, and I had repeatedly given strict orders against all unnecessary Sunday work at the station. True enough, orders came from the captain to come on board, as he would sail immediately. Lieutenant Hall was sent with a steam launch to arrest some natives

for various misdemeanors, and Mr. Kjellmann was sent to the herd to secure some necessary vouchers from the Lapps. The launch having returned from Grantley Harbor, adieus were spoken to the friends on shore, and at 8.30 p. m. the anchor was hove, and we steamed away for St. Michael. The fog setting in heavy, we anchored outside at Cape Spencer at 10.20 p. m. The next morning we were under way at 7.40, reaching St. Michael at 11.40 p. m. September 1.

In the harbor were the brigantine *C. C. Funk*, John Calliston master; the schooner *Alice Cooke*, D. B. P. Penhallon master, and the steamer *Lakme*, Charles Anderson master. Letters were received from the Swedish stations at Unalaklik and at Golovin Bay calling attention to the failure of the fish supply this season and the prospect of a famine during the next winter; also making inquiries whether it was not possible for provisions to be left at those stations. (See Appendix p. 133.) September 3 Mr. H. De Windt, correspondent of the *Pall Mall Gazette*, London, England, was taken on board, with supplies, to be landed at Indian Point, Siberia, from whence he expected to make a sled trip across Siberia; also Lewis Sloss, jr., and Rudolph Neumann, of the Alaska Commercial Company, and Rev. P. T. Rowe, the Episcopal bishop of Alaska, for transportation to Unalaska. At 9.20 p. m. farewell salutes were fired from the ship and the battery on shore, and we stood out of the harbor for East Cape, Siberia.

On September 5, encountering a gale with a rough sea, the vessel, being unable to proceed, hove to. The following morning, making out Kings Island looming up through the fog, the ship got under way at 5.25 o'clock, and attempted to reach it, which was accomplished at 8.55, when we anchored under the lee of the island abreast of the village.

Soon a number of natives crowded the deck. The northwest storm continuing with unabated severity and the time drawing near when the ship was under orders to report at Unalaska, the captain concluded to give up attempting to reach East Cape and to make at once for Indian Point; hence at 5 a. m. September 7 we were again under way. In the afternoon we came up with a large quantity of heavy drift ice, which we skirted for a long distance. On Tuesday at 4.20 a. m. we dropped anchor off Indian Point. Mr. H. De Windt, with servant and supplies, was sent ashore. All possible arrangements having been made for his comfort, at 10 p. m. we again got under way and stood for St. Lawrence Island, where we came to anchor at 3 a. m. on the morning of September 9. As there was coal to land for the use of the school, I went ashore with the first load to confer with the teacher and look over school matters. After breakfast Lieutenant Jarvis and Dr. Lyall, the physician, came ashore and performed a surgical operation on a child. The ailments of various natives were also attended to. While at lunch on shore the steam whistle blew for our return to the ship. Upon boarding ship the

anchor was hove and we got under way for the Pribilof Islands. That day and the following one were charming—as old sailors say, “weather breeders,” and so it proved to us. During the night of the 10th and 11th the wind changed dead ahead, and we hove to, the wind blowing a gale from the southeast and a heavy sea running; but little sleep was had on board the ship.

On the morning of September 12, there being a little lull in the gale, the ship again resumed her course, but in the evening the storm resumed its fury and we were again hove to under double-reefed mainsail. On the morning of the 13th at 2 a. m. the gale split the foretrysail. All that day and the following day and the day after that the storm raged in its fury. The supply of coal in the steamer was getting low. The date at which the captain was to report at Unalaska had passed, so making a desperate effort and proceeding as best we could through the storm, we were fortunate enough to get into the harbor of Unalaska, the quiet waters of which seemed very delightful after the tossing of the previous week. Going ashore for our mail, I had the uncomfortable experience to find that through some one's blunder my whole mail for the summer had been sent into the Arctic, and eventually did not reach me until weeks after my return to my office in Washington. This, however, was not as bad as the disappointment of the teachers and traders at Point Hope and Point Barrow in the Arctic at the loss of their annual mail which was sent them in the spring of 1895. It has not yet reached them, and information secured recently in the office at Washington locates the missing mail still on Puget Sound. If there are no further delays, the letters which were sent in the spring of 1895 will probably reach their destination in the fall of 1897—two and a half years after they started.

At Unalaska, finding that the U. S. revenue cutter *Wolcott* was under orders to proceed to Sitka, I sought and secured permission from Captain Hooper to accompany her. Going on board the morning of the 20th of September, we got under way during the forenoon and proceeded to sea in company with the cutters *Corwin* and *Grant* and two English men-of-war. It was the disbanding of the Bering Sea fleet for the season. The passage through the Aleutian Islands was made by the Analga Pass. The day was pleasant and the sail along the south side of the Aleutian Islands with their wonderful scenery delightful. On the 21st a short call was made at Belkofsky to ascertain the condition of a small Aleutian settlement where the people were said to be out of food. Learning that the settlement was safe, we were again under way for Sitka. The pleasant weather of the 20th and 21st was the calm before the approaching storm. While tornadoes were sweeping along the Atlantic coast, destroying much property in towns and cities, a similar storm raged along the Pacific, and, *commencing with the 22d*, for a week we were tossed and buffeted as the

North Pacific in the late fall knows how to do. Much anxiety was felt for the safety of our vessel. Boxes of oil were adjusted so that the drippings could stay somewhat the severity of the waves, and no doubt contributed greatly to the safety of the vessel. But it is a long road that has no turn. So after the discomforts of the protracted storm we entered on the 28th the land-locked island-studded harbor of Sitka with satisfaction and thankfulness.

The interval between September 29 and the departure of the mail steamer *City of Topeka* on October 10 was given to schools and educational work at Sitka. Taking in charge two young girls, who were sent to the Indian school at Carlisle, Pa., we sailed from Sitka on the 10th of October. The following day a call was made at Juneau. On the 12th we reached Fort Wrangel and on the 13th visited Metlakatla, reaching Seattle on the 16th, leaving the same night by train over the Northern Pacific Railroad. My trip was concluded upon reaching Washington, October 22, having traveled 18,465 miles.

As in the past so again this season I have been greatly indebted for facilities of transportation furnished me by the Revenue-Cutter Service of the Treasury Department. The permission accorded by the honorable Secretary of the Treasury and Capt. C. F. Shoemaker, Chief of the Revenue-Cutter Service, was cordially seconded by Capt. C. L. Hooper, commanding the Bering Sea fleet, Capt. Francis Tuttle, commanding the *Bear*, and Capt. Martin L. Phillips, commanding the cutter *Wolcott*, together with the officers of the *Bear* and the *Wolcott*.

I have the honor to be, sir, very respectfully, your obedient servant,

SHELDON JACKSON.

Hon. W. T. HARRIS, LL. D.,

Commissioner of Education, Washington, D. C.

It had also been decided to erect a store and herders' house, with a view of better controlling the herders and, if possible, keep outsiders from them. A rude plan and specification of such houses were given us, and not questioning the matter, but believing it to be a pre-concerted arrangement between yourself and the former superintendent, we immediately sent some of the apprentices after logs, which we laid as foundation, putting the superstructure upon these after the manner in the States, filling gravel and sand between in and out side sheeting to make it warmer.

This house, 24 by 40 feet long, has three rooms for families, with one large separate room for boys on one side, with a hall running through the center, while the other side will be taken up by boxes arranged for seal meat, seal oil, blubber, dried and frozen fish, a carpenter's bench, etc.

The storehouse is built up to and connected with the west end of the old station building, is 24 by 18 feet wide, and will have besides the storeroom a separate room for natives, one for a warden of the building, and one for supplies. In the garrets will be found a much-needed room for storing of sails, oars, fishing nets, and dry fish.

Nearly all the lumber, nails, and paint at the station were used in the erection of them, and the apprentices showed a marked interest and were untiring in their labor.

July 20 the revenue cutter *Bear* for the second time anchored in the harbor.

Shortly after, the dingey was lowered and Mr. W. Hamilton, assistant agent of education for Alaska, came ashore. Learning that he had deer for us on board we immediately sent for our herd, which we drove down on the beach to receive the newcomers. In the afternoon they were landed in the usual manner—taken partly in to land in boats, thrown into the water, when they swam ashore, joining with the deer in waiting for them, and counted as they ran up and entered the herd.

The corresponding tallies of the number received into the herd, taken on two opposite sides, was 85, but some were frightened by a number of tents on the beach where they were landed and by a considerable stir among the natives and ran up the lagoon before reaching the herd.

An inspection of the entire number brought the common verdict of "poor lot." That night three of them died, the next day a fawn; July 22, 3 more females; July 23, 1 more fawn; July 24, another female, and so on.

Almost all of the deer in this load had been more or less injured in transportation.¹

¹ The *Bear* encountered a severe storm while en route with the deer, during which the deer were injured by being thrown from side to side of their pen.

Those most severely injured lay down unable to follow the herd, so we placed special watches with them day and night, relieving each watch—one Lapp and two apprentices—at 10 o'clock in the evening and 7 in the morning, giving them a day off between each watch, for labor on schoolhouse and other buildings.

July 26 the revenue cutter again visited us, landing the deer as before, Rev. Hanna taking their number as they came ashore on one side and the superintendent on the other.

These numbers were found to be 37, with two escapes up the lagoon, one of which came back into the herd some days later.

Now with a view of being able to care for our patients and to afford them opportunity to feed without contact with the herd and on drier soil, we built a fence for them at Nook River, taking four of the severest cases into another fence nearer the tent, where they were attended to daily.

One of these, a large and very tame male, with an extremely bad foot, was shown Mr. Hamilton and others while at the station.

Three weeks the patients were confined in their hospital, during which time they showed such change as would warrant a move of camp ground.

We then placed them in a herd which we drove up the valley to the base of the hills back of Nook, where we camped a week.

Here there was a vast improvement among them, and we found the foot trouble especially rapidly abating; so we took them over the hill into the Ageeopak Valley, where we pitched tents on a high place with splendid moss, fuel, and wood, remaining here till late in October, when, for want of wood, we moved farther down the pass some 14 or 15 miles.

This camp was directly back of the Muck-A-Charley Mountain in a low tract opening into the large valley of the Ageeopak.

We did not remain long in this place, however, for the wind blew fiercely on the side we could use for our tents; so we again moved down the winding creek in a northeasterly direction, and halted that night in some small brush to reconnoiter.

From information given by Mr. Rist, who had been over the region before, it was agreed that we should follow the large river southward until a suitable place for winter, and probably fawning season, could be found. So the Lapps took the deer with them and the next day continued down the large river, making a general survey of the surrounding country, returning two days later with report of a suitable place 15 miles down.

When the mild northern sun again rose, it found us moving over a level country, winding our way as best we could over a rather marshy tract, and at dusk our tents, two for apprentices and one for the herders, stood pitched in the pleasantest spot we had yet seen in that desolate country. It was agreed upon to be the pasturage for the

winter and fawning season, having all requirements for it, such as fish, water, moss, wood, and shelter in abundance.

We camped here until May 1, during which time our herders experienced such hardship in the single, open-at-the-top canvas tents that we have determined to build huts for next winter's camping, and have sent several deer loads of suitable logs there for the purpose.

It now became necessary to make a change of pasturage—the snow leaving, which would make transportation difficult—so we retreated to the old camp back of Muck-a-Charley to be nearer sea and station during summer.

At this camp we rested a few days; then moved over the hills dividing the Ageopak Valley on the east and north side from the tundra and sea on south and west, remaining here some fourteen or fifteen days, after which we journeyed farther down the valley toward the station, and several changes which we since have made for convenience sake—wood, drier ground, etc.—now find us near Grantly Harbor and the sea.

In June, during the flowering of the grass, we experienced no difficulty in herding our deer. Finding that the female, with her fawn, more than the male, roved about in search of it, we separated them and established two camps, keeping a number of Lapps and apprentices at each. Later, when the grass was found in abundance on the tundra and elsewhere, we again joined them.

In the summer and fall we were compelled to do but very little milking, because of the serious results on our patients from running, lassoing, and occasional stampede. During winter we milked two, but in the June of 1896 quite a number.

Of the males that arrived during the summer, 23 were castrated. This, we thought, would be sufficient for next year's demand for additional sled deer. However, this was not the only reason; a very unpleasant cause, indeed, necessitated the operation.

The disease came over with them from Siberia, and was fortunately checked by this action from spreading among the females.

Later it disappeared entirely.

September 5 we set out to collect moss for the winter. Knowing that we would have to employ many more sled deer during winter than formerly, from the increased number of stoves required in the herders' house and elsewhere, a corresponding increase in the amount of moss would also have to be provided for. The moss is needed as food for the deer in cases where, after a day of hard work at hauling wood or moss, they are at the station, but can not be taken out to pasture for some reason or other, as, for instance, severe wind, snow-drift, frost, or fatigue of herders or deer.

We launched the whale boat, rounded off at Nook, and landed about 4 o'clock on the left shore of Grantly Harbor, some 8 miles farther in, where we pitched tent. This being the place where moss was collected in 1894 and not in satisfactory quantity, we sailed for the

opposite shore of the harbor some days later, where 3,000 mows or small stacks were set up.

We also cut and dried some hay previous to this, but it did not suit the taste of the sled deer, and was used instead for keeping out snow from our houses; for packing in the natives' and Lapps' boots, bedding, etc.

This place is 15 miles distant from the station, and as many days may intervene, at times, between coming and going of parties sent after moss, being detained by wind, snowdrift, unforeseen labor with the moss, and the like, former experience suggested the building of a hut, which during the cold months gave such excellent shelter in preference to the tent that a series of debates ensued, the result of which was an agreement to substitute them for the tent at the Ageeopak camp.

While sailing before a mild westerly breeze, having on board lumber, wood, logs, and some trading goods with which to trade for fish on the way, we had come within half a mile of our destination when one of the apprentices observed water in the boat. Being told to bail it out, he immediately made ready, but before being able to reach the only place in the boat for that purpose it quickly filled and laid over on the sail. The cork in the bottom had in some way got loose, which caused the occurrence.

While we were picking moss, building the hut, store, and herder house, fishing, herding, etc., a party of Lapps and apprentices were sent out to collect driftwood and raise it up into piles, to afford it opportunity to dry during the fall and to mark the place through the snow in winter. Quite a number of the piles were set up on the beach, covering a distance of 3 or 4 miles, but they proved to be far insufficient for the consumption of the station. So in April, May, and June we have often been 14 or 15 miles in search of fuel.

This, it is true, affords excellent opportunity for the apprentice at driving, but it is also a setback for the sled deer, which become lean and haggard from the constant toil with a heavily loaded sled over many miles of rough ice.

Two cartloads, 4 dog loads, and 406 deer loads of wood were consumed at the station between November, 1895, and June, 1896. There were 13 stoves required for the herder house and other buildings, and we were compelled to fix the pipes straight up to avoid fire.

Fishing was not neglected during the short summer, and our success, as a rule, far exceeded our expectations. While we were busy at carpenter and other necessary work about the station we used our standing nets, tending to them morning and evening. The result from these drafts was smoked and stored away for winter, when it affords one of the best articles for food, in that it does not freeze. Later we took trips into the bay with our large seines, and were abundantly rewarded.

Again, when the bay began to freeze large quantities of frost fish were caught by our apprentices while sealing.

This spring we were unable to secure the usual amount of fish. We have had an unusually late season, and so far have had no opportunity to lay in a supply of salt fish for the winter.

Sealing was a failure in the fall. Not only did the station lament the absence of the regular autumn visitor, but the entire coast from Cape Prince of Wales down to the lakes suffered more or less. At Palarzook, especially, but also Topcarzook and Canougok, villages between us and the cape, the natives were actually starving. Results of sealing were insufficient in the fall, frost fish failed them in the winter, and later the little crab which they sometime resort to for lack of something better also failed.

In April some of their dogs died, or went insane for want of food, and an invitation was extended them, to which they responded two or three days later, when they were fitted out with a small supply from the station, and parted with faces beaming with joy.

Later, in April, May, and June, grouse, seal, ducks, frost fish, geese, swans, and cranes were plentiful. A number of these were every day shot or trapped and added to the general food supply of the station. A mink was trapped in the spring by Wocksock, and later Toutook with a stick killed a large lynx, which he found on his morning watch.

The herders are (1) Johan Tornensis, wife, and a 2-year-old girl; (2) Mikkel Nakkila and wife (Tornensis's sister); (3) Mathis Eira, wife, and two boys, 1 and 5 years old; (4) Samuel Kemi, wife, one girl 3 years old and one boy 10 months; (5) Aslak Somby, wife, and girl about 10 years old; (6) Per Rist; (7) Frederick Larsen.

These men have been employed during the year in the various duties of an experimental place of this kind. Some of them have done their duty to my satisfaction without murmur; others have been an endless source of trouble to me. J. Tornensis and his brother, M. Nakkila, being the only ones with experience in labor other than that pertaining to the herd, with little help built and furnished the school-house, but showed no interest in nor did any labor on any of the other buildings. However, they looked to and kept their own houses in good order, which relieved me from fear of fire from that quarter.

M. Eira, upon his wife taking sick in the latter part of the summer, took leave of all duties for more than a month, at the end of which time he again resumed his duties with the herd. Tornensis and Nakkila, we thought it would be advisable to keep from the camp, so they were employed at the station as teachers in driving—at which they are experts—tending to the large number of sled deer at the pasturage, or in the barn making harness, sleds, and repairing these; accompanying the superintendent on his visits to other or our own

herd, making inland trips, etc., and in January, when the herd left for Golovin Bay, Nakkila, with one apprentice, accompanied them, returning with the deer and sleds lent for transportation. The trip was a success in every way and was completed in fourteen days. Nakkila is equally handy about the blacksmith shop, carpenter work, sail making, boat fixing, fishing, making of nets, and many other things. Tornensis is the harness maker of the station and the usual companion of the superintendent on his travels.

M. Eira is good at herding when someone is with him. He has been at the camp all winter, and his wife has shared his camp life with him the greater part of the time.

He refused to go with the Golovin Bay herd unless another Lapp accompanied him, so A. Somby was substituted, according to order. He, too, is good and reliable with the herd. His wife also shares camp life with him.

S. Kemi was partly with the herd and partly employed at the station during winter as driver with apprentices. During the sickness of his wife in spring he was exempted from duties.

Per Rist, the eldest among them, has been with the herd the entire year, for which service I take great pleasure in extending to you the highest commendation. Under his protection and care comes Frederick Larsen, yet a boy, but deserving of special commendation for his interest in and reliability as a herder.

The wives of these men, besides the two mentioned, have stayed at the station, owing to the presence of their husbands there and the little room and poor condition at the camp.

The rations were issued the herders at regular intervals of four weeks, and distributed as follows:

Name.	Flour.	Butter.	Rice.	Meat and pork.	Matches.	Mo- lasses.	Navy bread.
	Pounds.	Pounds.	Pounds.	Pounds.	Boxes.	Quarts.	Pieces.
J. Tornensis	60	8	5	45	1	2	40
M. Nakkila	60	8	5	45	1	2	40
M. Eira	70	9	5	45	1	2	40
A. Somby	70	9	5	45	1	2	40
S. Kemi	60	8	5	45	1	2	40
P. Rist	30	4	3	22½	8	1	40
F. Larsen	40	4	3	22½	8	1	50

NOTE.—Also 2 pounds sugar, 2 pounds coffee, 1 pound tea, and all the fish they wanted.

At times, however, it is necessary to add or give extras in between the rations—as, for instance, when parties are sent out just previous to the ration day and can not get back in time for the regular issue, or when they are detained at station from camp or elsewhere longer than was intended, their rations thus giving out. In such instances the articles, usually fish and navy bread, were charged against them and added in the amount found in the expenditure of each.

The navy bread was not issued with the regular ration, but, as has been the practice formerly, it was given them when going away from

the station. As everything on these trips freezes, and wood for fire is not always at hand or to be found, the navy bread, rather than the frozen bread, is indulged in.

Frederick Larsen was a constant applicant for these crackers.

The apprentices are: (1) Moses and wife, Yukon (wife from Nook); (2) Martin, Unalaklik; (3) Okweetkoon, Golovin Bay; (4) Elektoon, Point Hope; (5) Ahlook, Point Hope; (6) Tautook and wife, Polarzerook; (7) Sekeoglook, Port Clarence; (8) Kummuk, wife, and 3 children, Eaton River; (9) Wocksock, wife, and 3 children, Eaton River; (10) Dunnok and wife, Imaurook.

Considerable has been said of Moses in former reports, but I again take the opportunity to present him to you as deserving of praise. During the summer he courted and married a girl from Nook, who, however, was later taken back by her mother. In the latter part of November he met with an accident, fortunately, without a more serious result. Attempting to extract a cartridge that had fastened in his rifle, it exploded while he worked at it, splitting his chin and filling his eyes and face with powder.

Martin had made marked progress, but had a bad temper, and being tired of herding left in October.

Okweetkoon has made good use of his time at the station. He is good at herding and driving, but foremost of all the apprentices in lassoing. In Elektoon we find besides reliability as herder unusually bright intellect and an agreeable temper. He has made fair progress. Ahlook, his townsmate, is perhaps less progressive, but his deportment is splendid, and his kind temperament and willingness make him a friend of all. Tautook is foremost at herding, agreeable in temper, and now quite well acquainted in the various cares of a herder.

Sekeoglook and Wocksock require special commendation for their good will and exemplary interest. They are older men by far than any yet mentioned, so their progress is slower, but they will in time undoubtedly make our best and most trustworthy herders.

Wocksock has two sons, both of whom are now taking their watch with the apprentices.

Kummuk is fair at herding, but less capable of showing effect of progress or advancement. He is a typical Alaskan, loyal to the customs of the race—more so than to the order of the station—with no interest in school or church, the first of which he never visits, the latter only when bidden to. He has been extensively relieved from duties because of his sick wife. The two sons, about 7 and 4 years old, are among the brightest at school.

Kummuk was discharged in March for refusal to obey; then, refusing to leave the station, his rations were cut off. Dunnok entered his apprenticeship in October, 1895, and has since shown such progress as will warrant success as herder. His wife shares camp life with him.

During summer word was sent for apprentices up the coast to Cape Prince of Wales, Kotzebue Sound, Golovin Bay, and Yukon River, but none responded.

Merit roll.

Name.	Days on duty.	Deportment.	Adaptability.	Approximate number miles driven.	Number of deer lassoed.	Number of deer broken to harness.
		<i>Percent.</i>	<i>Percent.</i>			
Moses.....	102	90	95	200	9	2
Martin.....	45	67	92	(a)	-----	-----
Okweetkoon.....	102	88	92	200	6	1
Elektoon.....	210	92	92	300	7	1
Ahlook.....	210	94	80	400	8	-----
Tantook.....	310	90	92	350	10	1
Sekeoglook.....	310	90	90	500	8	-----
Kumnuk.....	98	65	86	200	2	-----
Wocksock.....	310	90	90	500	8	1
Dunnuk.....	240	86	92	450	8	-----

a Martin left before sleighing began.

We continued the same amount of rations to the apprentices as in 1894-95, not finding it advisable to decrease it, as the contract with the Lapps tends to increase the demand for such food as they have, and because sealing failed. The weekly ration per person (two children being same as one adult) is:

Sugar.....pounds..	1	Rice.....pounds....	2
Flour.....do.....	6	Corn meal.....do.....	2
Navy bread.....pieces..	40	Matches.....blocks..	2
Tea.....pound.....	$\frac{1}{2}$	Soap.....pound.....	$\frac{1}{2}$
Molasses.....pint.....	1	Salt meat and pork.....do....	4
Beans.....pounds....	3		

They had all the fish and seal oil they wanted. The rice, mess beef, pork, and sugar were not given after January 1.

After the camp was so far distant from the station that they could not come every week for their rations without considerable loss of time and inconvenience to them, we attempted to issue it every fourth week; but we soon had to discontinue this, for their rations, in the greater number of cases, were consumed in less than half that time; after which, being refused additional navy bread, would spread the report that we did not give them sufficient to eat. We then cut the regular time of issue down to two weeks, when the amount was found to be more than plentiful.

Allow me to suggest while on this question that the same amount of flour be allowed them that is given the Lapps, with no navy bread unless the ordinary bread becomes so hard from frost that it can not be eaten. The dry crackers are their favorite bread—always accessible, too, and afford them food with the least effort or labor. They resort in every instance to the bag of crackers first and subsist on these exclusively so long as they last, only making pancakes of the flour when there is no more hard bread.

The object of the Lapps is to acquaint them with the entire mode of life of the nomadic Lapp, and the baking of the bread at the camp fire should not be omitted. It would be as economical as the biscuit and a constant application to labor.

Harness.—No material improvement has been made. Years of experience have failed to suggest any. The kind now in use by the Lapps—the shape of the bow trees, their fastening with a string under the neck, the attachment of the side band to these bow trees, the fastening of the backband to the side bands, the extension of the backband and their fastening to the curved singletree under the belly are as simple, practical, and convenient as it is desirable to have them. The harness is put on and secured by two motions, and touch the deer as little as possible (which is an essential thing with our yet young males) except on the back and ridge of the neck where the bow trees rest. The belly trace, however, we improved upon by covering it with dog or other skins, thus preventing its chafing the legs.

A pair of shafts like those used for a single horse was also tried, but the result was not satisfactory for our young deer, who too often spin about until something breaks.

Seventeen new harnesses were made during the winter. Each herder made one or more, on which he carved with deep letters his own name and that of the village from which he came. Some were also made and given as presents to the herd at Cape Prince of Wales and to Antisarlook by Tornensis.

Fourteen new freight sleds were made in the fall. We have since frequently repaired and altered them to suit the purpose. Moses, Okweetkoon, Wocksock, Kummuk, and Tautook made 1 each. Snowshoes and skees were also made, the latter of which are much admired by the apprentices.

Between November and March 22 deer were broken to harness, making, with those from last year and previous, a total of 52. Moses and Frederick, taking the lead, sent down 3 for trial, which did good service tied to the back of another sled of our long wood trains. Elektoon, Okweetkoon, Tautook, and Wocksock have added 1 each, which have done good service at transporting driftwood or provisions.

Fifty-one of these deer have been employed at the station at various times, always dividing them so as to have a number at the herd rested and in good condition. In January, February, March, April, and May the tundra about the station was considerably covered with drift snow, under which lay a covering of ice difficult for them to get through, so we had frequently to change with fresh ones from the herd.

The supposition that reindeer could not be raised or would be difficult to raise in Alaska because of the dogs is entirely without a support.

The dogs in and about the station, or the neighborhood of it, gave

us no trouble. The one instance which occurred was from strange dogs which had arrived in the village the evening before. When our sled deer were driven back past the village by a Lapp and an apprentice the next morning on their way to the pasturage, they were attacked by these and other dogs, and in the skirmish and chase one deer was bitten in the left hind leg.

On our journeys to strange villages we would tie our deer some distance outside of it, or, where it was necessary to drive past them, would, when met by the dogs, step close up to the deer and lead them by.

The shepherd dog Bekkie had frequent epileptic spells in August and September, in which it would run in among the deer, biting right and left. To chain it seemed useless; in some way it would unfasten itself and invariably make for the herd and cause trouble. So we ordered it killed.

Distribution.—By order of Mr. W. Hamilton, assistant agent of education of Alaska, 100 deer were distributed, viz, 16 males and 34 females to St. James Mission, Yukon River; 16 males and 34 females to the Swedish Mission, Golovin Bay.

All these were selected January 16 and driven in one herd to Golovin Bay, where they will remain over fawning season and summer till next fall. When traveling is possible, the St. James Mission herd will be taken to its far destination on the Yukon. Moses, Okweetkoon, Martin, and Tatpan also left with this herd. Their personal deer consisted of 24 females and 6 fawns, namely: Moses, 11 females and 1 fawn; Martin, 5 females and 2 fawns; Okweetkoon, 6 females and 1 fawn, and Tatpan, 2 females and 2 fawns. All these were selected at one time and driven off on the respective parties' own responsibility, Mr. Howard representing the St. James Mission and Mr. Hultberg the Swedish mission at Golovin Bay.

There is now in Alaska a total of 1,175 domestic deer.

In October, having an opportunity to visit Cape Prince of Wales with an Alaskan in his whaleboat, we hoisted sail at 7 in the morning, and with an easterly breeze and considerable rowing reached the cape at 11 o'clock the night following, in total darkness, cold, wet, and fatigued.

Under the hospitable roof of Rev. Mr. Hanna we remained several days, during which we had occasion to visit the village church and Sunday school, so well attended that there seemed no room for more. Everyone joined in the hymns. The herd was found a few miles back of the village, in good condition, numbering 168. Thanking these people for the kindness extended us, and with a promise of a return some time later, we rowed the greatest part of the way back to Port Clarence, where we arrived two days later.

Our second visit to the same place was February 22, when a Lapp and myself, with two deer each, drove up the lagoon, overtaking

natives who left our station an hour or more previous, and arrived at Kanangok, the first village, at half past 4 in the afternoon, fully three-quarters of an hour before any of the other parties, proving beyond doubt that deer for traveling are far superior, both in speed and comfort, to their canine competitors. The morning after, the weather being favorable, we continued our way on the rough ice past Polarzock and Topcarzock, where the congregated Alaskans viewed us with evident astonishment. Turning to our right, we drove up the valley past the last-named place, instead of going around the projecting point into the village. About 3 o'clock that afternoon we tied our deer some miles outside, to be safe from dogs, and continued our way on foot first, then on dog sleds into the village, where a hearty reception was extended from Rev. Mr. and Mrs. Hanna and the many Eskimos.

The following day we were detained from visiting the herd by wind and snowdrift, but the Lapp, rather than stay at the station, had left in the evening, taking our deer with him.

We again visited church and Sunday school, both well attended, and many an ardent hymn, in simple voices, rose to Him who shapes the destiny of every life. The Lapp, J. Tornensis, had meanwhile cared for our own deer, counted the herd, and once more returned to the station. The 164 deer were in a prime condition, but, from considerable wind which pressed through the pass, heaping large masses of snow there, it was suggested to move them farther inland for the rest of the winter. February 26, Mrs. Hanna having decided to visit Port Clarence, we harnessed the dogs, placed her as comfortably as possible on a sled, and left Rev. Mr. Hanna with many good wishes and godspeed. From the herder's house we continued 2 or 3 miles farther on, where our deer were tied. Again placing Mrs. Hanna on my sled, we, with considerable difficulty, proceeded down the valley toward Polarzock, where we camped. The morning after, notwithstanding dense fog and snowdrift, Mrs. Hanna insisted upon continuing the journey, so we pressed on.

At Kanongat, where we camped on our way up, the Eskimos implored us to go no farther that day. "The ice had broken around the point, the only way for us to take; the wind would be so strong we could not drive against it; the day would be over, and we would lose our way; the white bear would see us; there would be no house for us to camp in," and many more such cheerful pleadings; but, the lady still being determined on reaching Port Clarence that day, I ordered the Lapp to drive ahead, Mrs. Hanna and myself, on one sled, following.

No doubt that was the most extraordinary journey that brave lady has ever made.

March 31 Antisarlook (Charley) drove up to the station, and with pathetic voice told us a snow slide had fallen over his herd, killing two

males and eight females. Having for some time desired to look into the condition of his herd, the locality he was in, etc., J. Tornensis made ready, and the next morning, with an apprentice, we started for his place, arriving there the day after. We found a range of low mountains running north and south, with a cut, or gulch, in the center, through which the northeast—the prevailing—wind swept, collecting on the west side of it a hanging bank of snow. His deer had been feeding at the foot of it, and the slide covered entirely these missing ten, besides injuring another female, which later had to be killed. The following history of Charley's herd was taken, according to his own account and that of the journal of the station:

	Males.	Females.	Fawns.	Total.
Given in total from station in 1895.....	21	83	9	113
Increase in spring of 1895.....			71	71
Killed for food in summer of 1895.....	4			4
Broke leg; jumping.....		2		2
Broke leg; chased by dog.....		2		2
Killed; eyes knocked out by lasso.....		1		1
Killed; chased by dog.....			1	1
Killed for fur for boys.....			2	2
Killed by falling snow.....	2	9		11
Delivered to Tatpan for herding.....		2		2
October 1, sold to station (P. Clarence).....		2		2
Increase in spring of 1896.....			78	78
Fawns died.....			18	18
Total in herd July 1, 1896.....	15	65	137	217

An account taken by the Lapp and myself of his deer April 4 corresponds with above, minus 35 fawns which have been added since. Taking in consideration the good condition of his herd and the favorable locality he is in, we have every reason to believe in a success of this loan. He was ordered to change pasturage and to avoid such places in future. Immediately sending the order to his herders, we found his herd the following day some miles to the west of his place, on a level field with good shelter.

We had some sickness during the year. Nasook, wife of Kummuk, had lung trouble when we arrived and was rapidly declining until in the winter and spring he was kept constantly with her, doing service at hauling driftwood or tending to deer at the pasturage.

Mrs. Kemi complained of being ill some time in January; was advised to take exercise out doors, but refused and gradually declined till in June she was not expected to live. Her husband, desiring to be near her, was employed at driving and generally tending to the sled deer, as has been stated before. Her disease was scurvy, brought on by eating salt meat. She was also unaccustomed to sedentary life. She is now recovering.

Karl Brevig suddenly took sick in the evening of March 1, and rapidly grew worse so that the next morning at 1 a. m. he was no more.

He was a charming little fellow, unusually intelligent, kind, and pretty.

Mr. Th. Kjellman has been more or less ill all the winter, growing worse until in June he was confined to bed for some time. In the fall we had an increase in the family of M. Eira. The boy is enjoying good health and developing each and every trait of a typical Lapp. November 22 Mrs. Kemi presented us with another, no less deserving of praise than its predecessor. Mrs. Kummuk, March 30, added a girl to the number of children, and Mrs. Brevig one the month following, making four children born at the station. The little girl of Kummuk pined and died some time later, and its mother shortly after. They were buried near the station. The trade in the fall constituted the main trade of the year. The large number of Eskimos left at Point Spencer by the departed whalers later came to us with all the goods not disposed of between themselves or to the ships. If it were not for this it would be difficult to procure many of the articles needed by the station. We had to purchase considerable quantities of deer skins, deer boots, seal boots, thong, deer thread, and sinews, because the supplies the Lapps brought with them were exhausted and because a great many more deer were employed at or about the station than formerly. A fair supply was laid in in July, August, and September, but additional articles were also purchased at various times through the entire winter, the chief one being dried and frozen fish, seal, and seal skins.

School began the first week in September and was fairly well attended at times in fall, but as winter set in the attendance lessened, until in March it ceased entirely. The poverty of the people, the poorly clothed condition of the children, and the little interest in the work undoubtedly are the reasons for the unsatisfactory result.

During the warmer months we had service quite regularly, later only occasionally, and lastly none at all. These services were held in Norwegian for the Lapps, after which would follow a song or two in English, with a story from the life of Christ, for the Eskimos. After Christmas these, too, ceased.

Three recitations were held for the exclusive benefit of the Eskimo during the year by the teacher, who used interpreters from Golovin Bay, also two readings given them by a man from that bay.

No service was held at the camp.

Our visitors through the year were Mr. Howard, with credentials from St. James Mission, and Mr. Hultberg from the Swedish mission, Golovin Bay, in January; Mrs. Hanna, from Cape Prince of Wales, and Mr. Kameroff, a trader in service of Mr. Dexter, near Golovin Bay, in February and March. A number of Alaskans have been our constant visitors, trading either with the station direct or with parties privately.

Our apprentices have had their amusements, their winter feast and dance, and we are much indebted to Mrs. Brevig for her labor and interest in several entertainments given them.

At Christmas we gave each resident in our village a present in the form of navy bread, flour, beans, and corn meal, and at New Year's a similar gift to the village of Nook of the same quantity and articles per person.

We have had a quiet and peaceful year with the natives, with not one occasion to mar the trust in them. The apprentices have been prosperous, energetic, and dutiful; also most of the Lapps; all of which I respectfully offer for your consideration. It is now sustained by experience that Port Clarence is not in a locality with particular favor for the deer. A much more convenient place might be found. Especially should one be sought where there are woods. In the near future, when the utility of the reindeer is firmly established and every prejudice removed which has been a barrier to the possibility of raising them in Alaska, such a place will be found. Later still, when these swift-footed rovers connect, over hundreds of miles of snow and ice, civilization with the remotest human abode and enterprise in Alaska, or carry the impatient adventurer from the coast into the somber depths of the interior, numerous stations will be found on Golovin Bay, on Kuskokwim River, Bristol Bay, Cooks Inlet, and Prince William Sound; but the present mode of operation is too slow.

There is no reason why the Government can not afford to be generous toward an enterprise that must become of national importance in the course of years, or, as has been suggested, contribute an annual amount sufficient to establish, with the consent of the Russian Government, purchasing stations on the Siberian side, where deer can be herded or kept in readiness for transportation to any favorable locality during the six or seven weeks of the short arctic summer.

To this we respectfully call the attention of every one interested in the development of that far-off territory and its boundless resources.

Respectfully, yours,

J. C. WIDSTEAD, *Superintendent.*

Dr. SHELDON JACKSON,

United States General Agent of Education in Alaska.

Statistics of Teller Reindeer Station for 1895-96.

1895.		
July 1.	In herd	402
	Received from Siberia	123
1896.		
Jan. 14.	Sent to Golovin Bay	130
	Died from effects of transportation	25
	Died from hoof disease	25
	Died from other diseases	9
	Died from accidents	8
	Males killed for food	10
	Killed by natives	4
	Fawns born	141
	Fawns died	10

58 INTRODUCTION OF DOMESTIC REINDEER INTO ALASKA.

1896.

July 1. Of the 423 at the station—

Yaootuk claims	15
Kummuk claims	11
Se Keoglook claims	7
Wok-sock claims	4
Electoonna claims	4
Ahlook claims	3
Total	44

There are 7 head of females in Antisarlook's herd at Cape Nome belonging to the Teller Station.

Reindeer account.

Date.		Male.	Female.	Fawns.	Total.
1895.					
July 21	According to counting	90	196	116	402
21	Received in herd during summer	55	56	12	123
	Total	145	252	128	525
Aug. 17	Branded to apprentices		26		26
Sept. 30	Died and killed during quarter	11	18	12	41
	Total	11	44	12	67
	Balance	134	206	116	456
Dec. 30	Died and killed during quarter	14	5	1	20
	Balance end of quarter	120	203	115	438
1896.					
Jan. 14	Delivered to—				
	Golovin Bay and Yukon	32	68		100
	Apprentice Moses		11	1	12
	Apprentice Tatpan		2	2	4
	Apprentice Martin		5	2	7
	Apprentice Okweetkoon		6	1	7
Mar. 30	Killed and died during quarter	14	2	1	17
	Total	46	94	7	147
30	Bought from apprentices		4	2	6
	Balance	46	90	5	141
	Balance end of quarter	74	113	110	297
June 30	Increase during quarter			130	130
	Total	74	113	240	427
30	Killed and died during quarter		2	2	4
	Balance on hand	74	111	238	423

Quarterly roll of lost, strayed, and killed deer, with cause of death.

Date.	Character of disease and cause of butchering.	Male.	Female.	Fawns.	Total.
1895.					
July 20	Died; effect of transportation		1	2	3
20	Died; cancer in heart (new comer)		1		1
21	Died; effect of transportation			1	1
22	do		3		3
23	do				1
25	do			3	3
26	do			1	1
28	do	2			2
30	Killed; dying from effect of transportation		1		1
	Total	2	6	8	16

Quarterly roll of lost, strayed, and killed deer, with cause of death—Continued.

Date.	Character of disease and cause of butchering.	Male.	Female.	Fawns.	Total.
1896.					
Aug. 1	Died during night; effect of transportation.....		2		2
6	Died; too feeble to follow herd.....			1	1
10	Found dead in morning.....		1		1
12	Died from effect of transportation.....		2		2
13	do.....		1		1
13	Killed; hoofs rotten, skin falling off legs.....	1			1
14	Killed; broke legs, jumped on by buck.....			1	1
18	Died; attacked by Bikkie, too feeble to follow herd.....	1			1
21	Killed; leg trouble (Okwitkoon's).....		1		1
24	Died; effect of transportation, sores on legs and body.....			1	1
28	Killed by request of W. Hamilton.....	1			1
	Total.....	3	7	3	13
Sept. 2	Killed; ulcerated legs, could not walk.....	1			1
4	Died in hospital; transportation.....	1	1		2
17	Died; trouble in kidneys.....	1			1
25	Died; males' foot trouble, broken leg.....	2	1		3
26	Killed; males' foot trouble.....		1		1
28	Female and fawn stolen by natives, males foot trouble.....	2	1	1	4
	Total.....	7	4	1	12
Oct. 5	Killed; leg trouble, could not feed.....	1			1
7	do.....	1			1
12	Died; too feeble to feed.....	1			1
17	Killed; leg trouble.....	1		1	2
23	Died; swollen legs, females killed by natives.....	2	3		5
26	Killed; leg trouble.....	1			1
	Total.....	7	3	1	11
Nov. 2	Killed; leg trouble, could not feed.....	3	1		4
9	do.....	1			1
20	do.....	1			1
29	Died; disease in liver.....		1		1
	Total.....	5	2		7
Dec. 7	Died; fighting.....	1			1
10	Killed; boil in breast incurable.....	1			1
	Total.....	2			2
1896.					
Jan. 6	By demand of Lapps, killed for food.....	7			7
6	Sold to Th. Kjellman.....	1			1
12	Strangled to death while grazing during night (sled deer).....	1			1
15	Killed at camp without permission.....	1			1
	Total.....	10			10
Feb. 13	Died during night; sore feet from summer.....	1			1
17	Died; broke neck while being lassoed (object to tame).....		1		1
26	Killed; year-old fawn, could not feed.....	1			1
	Total.....	2	1		3
Mar. 7	Broke neck while being tied to go to station (sled deer).....	1			1
25	Ran away through some of the Lapps' carelessness; killed by natives (sled deer).....	2			2
	Total.....	3			3
Apr. 26	Died during night; drifted in snowstorm, sick from summer.....		1		1
June 1	Died; disease in brain.....			1	1
12	Died in fawning.....			a 1	1
17	Died from some trouble in intestines.....		1		1
	Total.....		2	2	4

a Yearling.

Number and death of fawns calved April, May, and June, 1896. with cause of death.

Date.	Num- ber born.	Number of deaths.	Cause of death.
Apr. 8.....	7	1	Drifted with snow in night.
11.....	10	1	Desertion.
13.....	3	-----	-----
16.....	13	1	Frozen (mother yearling).
28.....	7	5	Still born (mother yearling).
29.....	6	4	Still born.
30.....	5	3	Frozen.
May 1.....	12	-----	-----
2.....	11	-----	-----
3.....	5	2	Desertion.
4.....	7	-----	-----
6.....	5	2	Killed by buck.
7.....	4	-----	-----
8.....	8	1	Stillborn (mother yearling).
9.....	10	-----	-----
10.....	6	-----	-----
11.....	4	-----	-----
14.....	7	-----	-----
16.....	2	-----	-----
20.....	11	-----	-----
24.....	4	-----	-----
28.....	3	-----	-----
31.....	2	-----	-----
June 2.....	2	-----	-----
5.....	2	-----	-----
12.....	2	1	Mother died in fawning, calf two days later.
Total....	158	21	-----

DAILY JOURNAL AT TELLER REINDEER STATION, PORT CLARENCE, ALASKA.

[From July 1, 1895, to July 1, 1896.]

By T. L. BREVIG, *Teacher*.

July 1, 1895.—Northwest wind and cloudy in the forenoon, clearing in the afternoon. I went over to the anchorage to get mail from the *Jeanie*. But little mail arrived, and I enjoyed the hospitality of Captain Mason over night.

July 2, 1895.—Clear and nice, with northwest wind. The revenue cutter *Bear* arrived at the anchorage at 1 p. m., being sighted early in the morning. Mr. Kjellmann also came over from the station, and we took dinner on board, leaving at 5 p. m. Camped on beach and then boarded the *Orca* and *Jeanette*, staying till midnight, when we sailed, arriving at the station at 4 a. m.

July 3, 1895.—Clear and calm. Mr. William Hamilton, Dr. Jackson's assistant, Dr. Sharp and Mr. Justice, from Philadelphia, came on shore in the *Bear's* steam launch, with a lieutenant in charge. Thermometer, 72° in the afternoon.

July 4, 1895.—Clear, with a very strong north wind. Captain Smith and wife from the whaler *Narwhal*, Mr. Hamilton, the *Bear's* doctor, and a lieutenant celebrated on shore. Photographs were taken of the Lapps, deer, and station. Thermometer, 71°. The herders were allowed to go to the ships.

July 5, 1895.—Clear and beautiful day, with north to northeast wind. The *Bear* had left the anchorage during the night. The nets caught 10 salmon to-day. To-night all the nets were set.

July 6, 1895.—Clear and warm, 73° in the shade. The wind made 2½ rounds of the compass, beginning northeast and setting at northwest. The water in the bay registered 53°. In the afternoon seven or eight distinct peals of thunder were heard toward the southeast, and the sky indicated a thunder storm over the mountains. A smoke-house was built near the oil house. Antisarlook and Mary arrived from the sandpit in the evening.

July 7, 1895.—Clear and warm; strong north wind in the evening.

The whaler *Orca* left in the morning and the whaler *Balaena* anchored near Nook, presumably to fish. Aslok and Mathis went out to the ships in a ship's boat without asking permission. Fredick, Okwitkoon, Tautook, and Elektoon went out to the herd. Kjellmann, Johan, Mikkell, Ahlook, and Wocksock went in to Grantly Harbor to fish.

July 8, 1895.—Clear with strong north to northeast wind all day, clouding over toward night. Two ships are anchored beyond Cape Riley and the steamship *Jeanette* is anchored near the shore watering. The fishing party returned with 50 salmon and 20 more were caught here at the station. Mr. and Mrs. Brevig had dinner aboard the *Jeanette*.

July 9, 1895.—Clear with medium west wind and a thin fog in the evening. The *Jeanette* had left during the night, and the vessels at Cape Riley returned to the anchorage. Sail was made for the new dingy.

July 10, 1895.—Light west wind; clear in the forenoon, fog in the afternoon. In the afternoon Brevig, Johan, Mikkell, Ahlook, and Mrs. Nakkila went over to the *Jeanie* for some provisions and returned at 11.30 p. m. A deserter from the *Jeanette* was here in the evening, and the instructions in regard to deserters were read to him. His intention was to work his way up the Yukon.

July 11, 1895.—West wind, with a little fog. Kjellmann went up the lakes to fish with two boat crews. The deserter left to-night.

July 12, 1895.—Strong west wind. Overcast part of the day. Captain Whiteside and wife called at the station. About noon a brigantine was seen to anchor at the anchorage. About 4 p. m. she set sail and steered for the station. She proved to be the brig *W. H. Meyer*. Brevig boarded her as soon as she anchored, and Mr. Widstead, the assistant, soon landed. Brevig and wife boarded her in the evening.

July 13, 1895.—Overcast, with rain and fog; strong west-southwest wind, with very high surf that hindered all communication with the ship. Kjellmann did not return from Grantly Harbor. A native doctor was chased out of Tantook's house while he was performing his incantations over an old woman.

July 14, 1895.—Light south wind in the forenoon; calm in the afternoon. Rain and fog. The usual service and Sunday school. The *Meyer* landed the lumber and some of the cargo. Fredrik reported a female deer dead. Mr. and Mrs. Hanna came on shore in the afternoon and took supper with Brevig. The whalers *Balaena*, *Narwhal*, and *Belvidere* went over to the anchorage in the morning.

July 15, 1895.—Light northwest to northeast wind. Overcast, with some rain in the forenoon, clearing in the afternoon. All hands have been busy unloading and receiving the cargo from the *Meyer*. One vessel left and three arrived at the anchorage. Mr. and Mrs. Hanna were on shore part of the day.

July 16, 1895.—Clear and calm in the forenoon. At 5 p. m. a

strong west-southwest wind set in, bringing rain and fog. Nearly all the cargo of the *Meyer* has been landed, and all would have been landed but for the high surf toward night. Samuel brought in a parasite that had been found in a dead deer. It was fastened to the heart, and from there had spread in different directions through the flesh, some arms being 6 feet long. Part of one arm was preserved in alcohol and will be sent to the Bureau.

Mr. and Mrs. Hanna were on shore and took dinner with the Brevigs.

July 17, 1895.—Very strong west-southwest wind, with some rain. About 1 a. m. I was awakened by a native woman yelling at my window, "Ship; come quick; on shore; by and by break." And on looking, the *Meyer* was seen broadside, dragging toward the beach. She came on rapidly and a line was soon made fast on shore, but the passengers were not landed till about 3 o'clock, and at the next trip the boat was stove in. About 5 a. m. she was abandoned and the men were quartered in the herders' house. The captain, supercargo, and first mate took breakfast with the Kjellmanns, and the Hannas with the Brevigs. Afterwards all stayed with the Brevigs. The captain and supercargo went on board and stayed all night. She soon filled with water and sand. The keel and rudder were knocked off in stranding.

July 18, 1895.—Strong west to southwest wind, overcast, with some rain. The captain and purser made two attempts to reach the vessels, but did not succeed. Mr. Hanna's trunks and boxes were brought on shore, all soaked. The hold is filled with water to within 3 feet of the hatches and the cargo is all soaked through and broken up. Considerable coal was landed, the natives helping themselves in some instances. The lumber was piled.

July 19, 1895.—Overcast, with strong southwest wind with showers. Nothing landed from the wreck. Mr. Hanna opened some of his boxes and found them full of coal dust that had washed in.

July 20, 1895.—Southwest wind, medium strong; rain. At 7.30 a. m. the *Bear* hove in sight, and during the day 100 deer were landed. In the evening the *Narwhal* came in with several captains; and the *W. H. Meyer* was sold to Captain Townsend. A crew of natives were employed to unload the cargo.

July 21, 1895.—Light southwest wind, with occasional glimpses of the sun. The *Balaena* arrived from the anchorage, and the wrecking was continued. Mr. Hamilton was on shore all day transacting business. Mr. William A. Kjellmann resigned, and his resignation was accepted by Mr. Hamilton. Mr. J. C. Widstead was appointed in his place, and Mr. Hanna assistant.

Several officers from the *Bear* were on shore. In the evening the crew and officers of the *Meyer* were taken on board the *Bear*. Mikkell and Ahlook arrived from Grantly Harbor with fish. Wock-sock and family were left at the camping place. Several of the deer

landed died during the night and day, and several are sick. Mesdames Brevig and Hanna and Rev. Hanna took dinner on board the *Bear*, which sailed about 7.30 p. m. The *Balaena* left soon after, and the *Meyer* was given to Brevig to unload what coal he could and look after things on shore.

July 22, 1895.—Light southwest wind, calm in the afternoon; cloudy, with showers. The whaleboat with Kummuk in charge was sent to Cape Prince of Wales to bring Mr. Lopp for a consultation in regard to that station. Kjellmann went over to the sandpit to engage passage for his wife down to the States. A boat crew from the whaler *Balaena* called in to ransack the *Meyer*, but left without anything.

July 23, 1895.—Clear and calm, with a light fog early in the morning. Kjellmann had returned during the night. The *Sanoma* anchored about noon 1 mile offshore, and Captain Lundgreen, Captain Peterson, and Mr. Wood came on shore. A boat was sent to the fishing party in Grantly Harbor. All the vessels left the anchorage this morning.

July 24, 1895.—Clear, with a light west wind. The fishing party returned in the evening with 100 dried salmon. Some work was done on the schoolhouse. The *Sanoma* has been taking water all day.

July 25, 1895.—Light southwest wind, partly overcast. Two deer died. Mr. Lopp arrived early in the morning, and things were talked over. The roof on the schoolhouse was commenced. The *Sanoma* is still taking water.

July 26, 1895.—Strong south wind with some rain. The *Bear* came in and anchored at 8 a. m. Forty deer were landed; one went down the beach west of the lagoon. Mr. Lopp boarded the *Bear* and remained on board. The doctor from the *Bear* was on shore, examined Nazuk and Fredrik, and prescribed for them. One deer died.

July 27, 1895.—Overcast, with light south wind. The *Bear* coaled up from the *Sanoma*. Mr. Hamilton transacted business on shore all day. Rev. Hanna resigned as assistant, and Th. Kjellmann was appointed in his place. Hanna bought W. Kjellmann's provisions, and the Cape herders were supplied from the station supplies. The goods were taken on board the *Bear*, and Rev. Hanna and wife also went on board. W. Kjellmann also decided to go down with his wife.

July 28, 1895.—Overcast and only occasional gusts of wind from various directions. Sunday school was held in the evening. The *Bear* left about 5 a. m. with the *Sanoma* in tow, leaving her at the sandpit and went north on her yearly cruise. Clearing toward evening.

July 29, 1895.—Overcast, with strong north-northeast wind. Work on the schoolhouse roof was continued. Some coal was landed from the *Meyer* and placed on the beach out of reach of the surf. A two-masted steamer arrived at the anchorage and a canoe with letters from Lopp and Hanna.

July 30, 1895.—Clear and nice, with medium north to north-northeast wind. Some mail was received by the steamship *Lackme*. Kjellmann received notice to be on board the *Lackme* to-morrow afternoon. Building on the schoolhouse. A baby girl arrived at Mathis Eira's.

July 31, 1895.—Clear and nice, with a light north-northeast wind. Kjellmann left about 2 p. m. Brevig, Widstead, Mikkell, Johann, Fredrik, Kummuk, Elektoon, Sekeoglook, and Okwitkoon came with him, but could not return on account of the high winds. Th. Kjellmann had charge of the station.

August 1, 1895.—Clear and nice, calm in the afternoon. Brevig returned from the ship about noon, and the rest in the evening.

August 2, 1895.—Clear, with strong north wind in the afternoon. Letters were received from the cape. The *Sanoma* and *Lackme* had disappeared from the anchorage in the morning. Several canoes left for the lakes to fish. Provisions were issued to the Lapps.

August 3, 1895.—Clear and chilly, with a medium strong north-northwest wind. General work around the station.

August 4, 1895.—Clear, with strong north to north-northwest wind increasing. Service and Sunday school.

August 5, 1895.—Clear, with a very strong northeast wind all night and day. The superintendent, with Moses, Martin, and Sekeoglook, went down Grantly Harbor for stones as a foundation for the proposed herders' house. The pipe on the main building was fixed, and work continued on the schoolhouse.

August 6, 1895.—Overcast, with a medium north-northeast wind during the day; blowing a gale during the night. A party of herders were sent out after a raft of logs, and the foundation for a new herders' house joining the old one on the west was laid. A shelf was put in the old schoolhouse, and the books were put in there. Many salmon caught.

August 7, 1895.—Overcast, with a few light showers. Strong northeast wind during the night and forenoon; moderating and variable.

August 8, 1895.—Frequent showers all day, with sunshine between. Light north-northeast wind veering to the north. General building.

August 9, 1895.—Clear, with strong north wind, easterly in the morning. A small sloop entered the bay and anchored abreast of the village. Miner Bruce and a whaler from Point Hope came on shore and stayed all day. The galley of the *Meyer* was made into a flour house. The roof of the lean-to was tinkered. A gang brought home a raft of logs for the herders' house.

August 10, 1895.—Clear and nice in the forenoon, with a very strong southwest wind in the evening. The sloop remained all day, and Bruce brought a little girl and made arrangements to take a troupe of two males and two females with him. The sloop sailed over to the other side and anchored and Bruce and Thayer remained at the station with the little girl.

August 11, 1895.—Cloudy, with rain and strong south-southwest wind. Bruce and Thayer stayed around the station all day and went on board after dark. The tumult at the station hindered service and Sunday school.

August 12, 1895.—Light north wind, with glimpses of the sun between showers. Several men were sent out to look up all the deer that could not follow the herd. One skin was brought in. The framework on the new herders' house was set up.

August 13, 1895.—Clear and bright, with a light northwest wind, changing to northeast in the evening. General work around the station. The first snow of the season had fallen during the night, covering the mountain tops to the southeast and northwest, those of the east being covered nearly to the base.

August 14, 1895.—Clear and nice, with a light west to northwest wind. Housebuilding. A fawn had to be killed, as a foot was broken by being jumped on by an old deer in crossing a small stream.

August 15, 1895.—Clear and nice, with a light west-northwest wind. Building. Widstead, Kjellmann, and two Lapps went out fishing in a small lake northwest from the station.

August 16, 1895.—Clear and nice most of the day, clouding over at night; westerly breeze. A number of deer reported sick from swollen legs.

August 17, 1895.—Clear and nice, almost calm. A deer that had been sick for two days was killed, and "Beckey," the shepherd dog who lately had taken to chasing and biting the sick deer, was killed.

August 18, 1895.—Partly overcast, calm and nice, with a light breeze in the evening. Service and Sunday school.

August 19, 1895.—Clear and calm; with a rising northeast wind in the evening. Thermometer, 72° about noon, and sultry. Building was indulged in.

August 20, 1895.—Strong north to northwest wind all night and day. Fog in the mountains. The superintendent, two Lapps, and two Eskimos were out building a corral for the deer.

August 21, 1895.—Foggy on the hills, clear, with a medium-strong north wind. A female deer was killed on account of a swollen leg. A general hunt was made for a sick deer, and it was put in the corral. The swollen legs were cut open and treated. Eyes were strained in vain for the Bear.

August 22, 1895.—Overcast and chilly, with a strong north to northeast wind. General work around, fixing up. A canoe arrived from the cape with letters from Lopp and Hanna.

August 23, 1895.—Rain and fog all night, with medium-strong north wind. Three cape canoes arrived.

August 24, 1895.—Clear and nice, with a light west to northwest wind in the afternoon. Nearly all the Laplanders have been sent up to the tent with the deer.

August 25, 1895.—Overcast, with strong west to southwest wind, with a little rain toward dark. Sunday school and services.

August 26, 1895.—Strong south-southwest wind, abating toward evening, with a little rain. Five Lapps and four Eskimos were sent out to the herd; Johan and Wocksock to get hay.

August 27, 1895.—Clear and nice, nearly calm. At 6 p. m. the smoke from a steamer was seen. At 8 p. m. she entered the bay.

August 28, 1895.—Overcast, with nearly calm. The *Bear* was anchored outside the station in the morning and the surplus reindeer goods were landed. Mr. Hamilton, Mr. Lopp, and Dr. Driggs were on shore, also several officers. A deer was butchered and sent on board. Accounts were settled. Mr. and Mrs. Brevig called on board in the evening.

August 29, 1895.—Cloudy, with some rain in the morning. Mr. Hamilton was on shore all day transacting business, also several of the officers and guests.

August 30, 1895.—Cloudy, with rain in the morning, strong northeast wind during the night, changing to south in the forenoon, very high tide. The *Bear* left early in the morning.

August 31, 1895.—Partly overcast, with showers. Northeast wind during the night, veering to northwest. Considerable sickness among the deer.

September 1, 1895.—Clear, with southwest wind, turning to northwest. Service, with baptism of Mathis's child and communion. Sunday school.

September 2, 1895.—Overcast, with medium-strong northwest wind. Two females with their fawns were brought from Moses and Okwitkoon. School commenced with 8 pupils. Carpenters were at work in the schoolroom and everything was in disorder. No seats and no blackboard.

September 3, 1895.—Partly cloudy, with medium-strong northwest wind, turning to northeast, becoming stronger. Four deer were found behind the hills, two dead and two sick; the latter were brought back to the herd. A door was cut through the east wall of Brevig's kitchen and an entrance made.

September 4, 1895.—Clear, with a medium-strong northeast wind. General work around the station. A male deer that had been kept around the station sick with a swollen leg was killed.

September 5, 1895.—The superintendent and family, with Samuel, Johan, Mikkell, and Wocksock, went up to Grantly Harbor to lay up moss and fish. Clear, with southeast wind, very light.

September 6, 1895.—Overcast, with a light westerly wind. A partition was put in the old schoolroom for a library.

September 7, 1895.—Cloudy, with a strong southwest wind. Carpentering the order of the day. A Diomedé canoe arrived. Fredrik came down from the herd last night.

September 8, 1895.—Cloudy, with very strong southwest wind. Sunday school in the schoolhouse.

September 9, 1895.—Raining, with a continued storm from the south-southwest. The whaleboat arrived in the afternoon, having been all day from the north side of Grantly Harbor. They came in for more provisions.

September 10, 1895.—Cloudy, with showers during the day. At 1 p. m. the superintendent and family all went to the "moss domains." Medium-strong southwest wind.

September 11, 1895.—A genuine Alaska day, with pelting rain and howling wind all day. The wind started fair from northeast, veered to the east, increasing in strength, and finally settled at south, becoming a gale. The masts of the ship snapped.

September 12, 1895.—Cloudy, with pouring rain all day. Strong south to southwest wind. Carpeting and painting. Aslok took his family out to the herd, which is now removed northeast beyond the hills, on a small stream.

September 13, 1895.—Cloudy, with drizzling rain, light north-northwest wind. Moses, Tautook, and Elektoona came in from the herd, reporting many sick deer. Carpeting, etc.

September 14, 1895.—Cloudy, with snow flurries, snow covering the hills around. The roof of the warehouse was fixed with walrus hides and tar paper, and a door put in the east end. Painting and house cleaning.

September 15, 1895.—Cloudy, with light northwest wind and snow flurries. Sunday school in the forenoon, but no service, as the Lapps were nearly all out. Per went out to the herd with Moses and Elektoona. Tautook came in. The moss and fishing party arrived about 4 p. m., reporting everything wet. Ice one-fourth inch thick was formed on pools and barrels of water; it did not thaw during the day.

September 16, 1895.—Partly clear, light northwest wind. Snow covered the ground this morning, but disappeared. Mountains and hills are covered.

September 17, 1895.—Partly clear, with west-southwest wind and some rain. Several of the Cape Prince of Wales and Kings Island natives were drunk last night. Two canoes arrived from the cape, bringing letters from Mr. Hanna. A party was sent out stacking up wood for winter. Carpentering, painting, etc.

September 18, 1895.—Clear, with very strong west-southwest wind, increasing toward evening. Carpentering, etc.

September 19, 1895.—Banking up of the house on the weather side and fixing windows. The wood party returned toward dark.

September 20, 1895.—Cloudy, with strong south-southwest wind, some rain. Carl Brevig's second birthday.

September 21, 1895.—Clear in the morning, clouding over, with rain from northeast after dark. Several canoes left and some arrived.

September 22, 1895.—Cloudy, with a very light northeast wind, and light winds all day. Sunday school and service.

The deer that had strayed away have been found, and returned to the herd.

September 23, 1895.—Cloudy, with northwest wind. About 4.30 p.m. the superintendent, with both boats loaded with trading goods, went into Grantly Harbor to trade fish. The Laplanders were to build a winter house for stopping at when going after moss.

September 24, 1895.—Cloudy, with strong northwest wind; cold. About 4.30 p. m. the superintendent returned walking, reporting that the whaleboat had taken in so much water that it was near sinking when the smaller boat came to the rescue. All the provisions, one rifle, the station field glass, and trade goods were lost, the people reaching shore wet and cold. The crew arrived about 6.30 with the boat.

September 25, 1895.—Cloudy, with a light north-northwest wind. The boat left again with provisions for the house builders; three-fourths of a barrel of molasses, lead, powder, kettles, spades, tobacco, files, knives, combs, sugar, navy bread, one rifle, one shotgun, and several other small things, besides the provisions of the party, sent down with the boat yesterday.

September 26, 1895.—Cloudy, clearing toward evening; strong northeast wind all night and day. General work around the station. Many canoes are encamped on the beach. Some snow fell during the night, and ice one-half inch thick had formed on pools.

September 27, 1895.—Clear, with light east to south-southeast wind. Several canoes left and several arrived. The station boats arrived from the lakes. Heavy frost during the night. Twenty-eight pupils in school.

September 28, 1895.—Clear, light southeast wind, changing to strong south-southwest at night. In the afternoon the superintendent left for the place of disaster with four men to try and fish up some of the sunk goods.

September 29, 1895.—Partly clear, with light southeast wind. Sunday school. In the afternoon Charley and Mary arrived and reported all well with the deer. Per Rist reported that a female with fawn had suddenly disappeared. She had a bell on. Soon after Moses found some Nook people eating fresh deer meat and tallow. An investigation will be had. The visiting canoes have made a business of pilfering around the station.

September 30, 1895.—Clear and calm. Light rain during the night. At 1 p. m. the superintendent and party returned, having worked all day and found nothing.

October 1, 1895.—Clear and nice, with light east wind. Samuel, Elektoon, and Tautook went out gathering wood. Kummuk and Wocksock went to the herd. A new deer shed was commenced.

October 2, 1895.—Clear, with a medium-strong north-northeast wind. Antisarlook and Mary left in the forenoon. He sold two deer with fawns to the station. Martin went with him and would try and reach Golovin Bay from there. Building and fixing up.

October 3, 1895.—Clear, with a light northwest wind. Trading canoes came in from the cape. The wood gang returned in the forenoon.

October 4, 1895.—Clear and fine. Light west-northwest wind. Considerable trading done. One canoe left for Antisarlook's place.

October 5, 1895.—Cloudy, with strong east-northeast wind. Several canoes left for the cape. A new man was received at the station as herder.

October 6, 1895.—Cloudy, with a light rain. Sunday school. Moses's marriage was postponed, as his intended would not promise to go with him to his future home up on the Yukon.

October 7, 1895.—Clear, with light east wind, mild. Th. Kjellmann went out to the herd to count the deer. Atthorlook found a fresh deerskin and tendons buried in the sand a short distance below the village. Two bullet holes in the skin showed that it had been shot. Theft is the only explanation.

October 8, 1895.—Clear and nice, calm; a light north-northeast wind after dark. Mikkell ran a nail through his foot. Th. Kjellmann and Johan returned from the deer.

October 9, 1895.—Overcast, with a storm; northeast wind all night and day. Kjellmann reports 490 deer in the herd. Grouse plentiful. Some 30 deer were sick. House fixing and painting.

October 10, 1895.—Cloudy, with snow in the evening; strong north wind. At 2.30 p. m. the superintendent, Tautook, Mikkell, Samuel, and Donnack and wife started in the whaleboat for Antisarlook's place. In the evening Moses and Nahzahk were married, Mrs. Brevig and Th. Kjellmann being witnesses.

October 11, 1895.—Cloudy, with strong north to northeast wind, snowing all day. Several people were drunk around the station, and it seems from whisky procured from some vessel. Nettogak has offered some for sale.

October 12, 1895.—A cold, blustering day, with strong north wind. Stoves were put up in the herders' room and Wocksock's room, and they moved in. Fredrik returned from the herd.

October 13, 1895.—Clear and nice, with a light north wind. The usual Sunday school and service. In the evening the superintendent and party returned, having only reached Point Spencer Thursday night, and could not leave it, on account of the surf, until this morning.

October 14, 1895.—Cloudy and cold, with a strong northeast wind. Three Lapps and one Eskimo were sent out to stack the moss.

October 15, 1895.—Cloudy in the forenoon; clearing in the afternoon,

with a light north-northeast wind, becoming easterly. A canoe arrived from the cape with the rumor that the *Jeanie* was wrecked at Herschel Island.

October 16, 1895.—Clear and cold, with a light north-northeast wind. Thermometer, 20° to 24°.

October 17, 1895.—Cloudy and snowing in the afternoon. Strong north-northeast wind. The Lapps received their provisions. Aslak came in from the herd and reported several deer sick. Thermometer, 19° to 24°.

October 18, 1895.—Cloudy, with snow all the afternoon. The cape canoes left early in the morning. Thieving is becoming general. Lumber, coal, tools, etc., are stolen by visitors and people of the village. The moss party returned without the whaleboat, as the ice was too solid on Grantly Harbor for the boat to pass through. Thermometer, 29° to 35°.

October 19, 1895.—Cloudy, with medium south wind. The cabin stoves from the *Meyer* were found in a native's house, and taken back to the station. The herders reported one deer dead. Lumber that has been taken both from the station and from Captain Townsend is seen in the village. Thermometer, 32° to 25°.

October 20, 1895.—Overcast, with light east to northeast wind. Thermometer, 30° to 31°. Sunday school.

October 21, 1895.—Clear, with light north wind. A canoe load of wood was brought in. Ahlook reported two deer dead. Seven in three weeks. At 6 p. m. a whaleboat arrived with two native whalers that had been landed at the cape from the *Thrasher*. Twenty-six pupils, all natives. Thermometer, 31° to 36°.

October 22, 1895.—Light clouds. Light east wind. The Lapps brought a boat load of wood. Thermometer, 29°.

October 23, 1895.—Clear toward evening. Light east winds. At 9 a. m. the superintendent left for Cape Prince of Wales. Moses and Kummuk went along. Two herders went into Grantly Harbor to look after and care for the whaleboat. Per and Fredrik came in from the herd, reporting one more deer sick.

October 24, 1895.—Clear and light calm. Thermometer, 16° to 20°. A canoe load of wood was brought in.

October 25, 1895.—Cloudy, with very strong east wind all night and day. Per and Fredrik left for the herd. Thermometer, 15° to 20°.

October 26, 1895.—Clear in the afternoon, with strong east-south-east to east wind. Aslak with family, Mathis, Sekeoglook, and Okwitkoon arrived from the herd. General wood cutting and putting things in order. Thermometer, 26° to 31°.

October 27, 1895.—Cloudy, with light northeast wind; rain in the evening. Sunday school and service. Wocksock and Ahlook arrived from the herd, leaving only Per and Fredrik as guard. One fawn died. Thermometer, 27° to 40°.

October 28, 1895.—Clear, with a light northeast wind, increasing

toward dark. Lapps and Eskimos went out to the herd. Johan and Mikkel went out hunting. Thermometer, 24° to 32° .

October 29, 1895.—Light clouds, mild, 45° at noon. At 7 a. m. the superintendent and party returned from the cape. Three deer had died since August 1. The boat had been on the trip twenty-four hours.

October 30, 1895.—Clear, nice day. A canoe load of wood was brought. Thermometer, 30° to 38° .

October 31, 1895.—Clear, nice day. Light east-northeast wind. Wood brought in. Thermometer, 32° to 40° .

November 1, 1895.—Light clouds, with light north wind. At 9 a. m. the superintendent and Mikkel went out to the herd to get some pictures taken from it. A canoe load of wood was brought. Thermometer, 29° .

November 2, 1895.—Cloudy, with medium-strong north wind. At 5.30 p. m. Widstead, Per, Ahlook, Tautook, Elektoon, and Mikkel came in from the herd, which had been moved about 5 miles farther. Eight deer had been left at the old camp because they were too sick to follow the herd, and two Eskimo herders sent back to bring them in slowly. Thermometer, 27° to 31° .

November 3, 1895.—Clear, with light northeast wind growing stronger. Sunday school. Thermometer, 19° to 25° .

November 4, 1895.—Clear, with a wintry breath from the northeast. Ice is forming on the bay. The herders went out to the herd. Two sleds arrived from the lakes. Thermometer, 17° to 24° .

November 5, 1895.—Cloudy, with a gale from northeast all night and day. Mikkel, Mathis, and Dunnuk returned from a visit to the "Deerslayer" herd, admitting the act. Thermometer, 17° to 23° .

November 6, 1895.—Clear, with light southeast wind in the morning, veering to northeast and becoming stronger after dark. Kumuk and Sekeoglook went out seal hunting about noon in the little boat. Fredrik came in from the herd. Sled building is being thought of. Thermometer, 22° to 30° .

November 7, 1895.—Partly overcast, with a gale from the northeast during the night. Light, varying winds during the day. Fredrik and Dunnuk went out to the herd. The wind increased in strength after dark. Thermometer, 30° to 38° .

November 8, 1895.—Clear and cloudy, calm and windy. Thermometer, 40° .

November 9, 1895.—Strong wind from the northeast, with a little snow in the evening. Per and the herders arrived from the herd for provisions. Thermometer, 30° to 35° . Cloudy.

November 10, 1895.—Cloudy, with light, northeast wind, 15° to 22° . Sunday school and service. The superintendent settled with the "Deerslayer" for five white fox skins.

November 11, 1895.—Clear, cold, and calm. Provisions for three

weeks were sent out to the herd with Mikkel. Moses and wife, Taurook, and Per also went out. Sekeoglook and Kummuk went out sealing. A load of wood was brought.

November 12, 1895.—Clear, with light north-northeast wind; calm in the afternoon. Mikkel returned from the herd. Some fish were brought in. Thermometer, 8° to 15°.

November 13, 1895.—Clear, with occasional snow flurries; medium strong north wind. Thermometer, 12° to 17°. The bay was cleared of ice. Cutting wood.

November 14, 1895.—Partly overcast; some snow fell during the night. Light northwest wind. Some fish were brought in for trade. The superintendent, with three herders, brought in a canoe of wood. The bay is yet clear of ice. Thermometer, 10° to 12°. Kummuk and Sekeoglook came home, reporting plenty of tomcod caught, but no seal.

November 15, 1895.—Clear, but hazy and cold. Light north to northwest wind. Thermometer, 6° to 8°.

November 16, 1895.—Clear and nearly calm. Thermometer, 5° to 6°.

November 17, 1895.—Clear, calm, cold. Sunday school. Thermometer, 10° to 3°.

November 18, 1895.—Clear and calm. The roof of the school-house caught fire from the tar paper around the pipe, but was extinguished before any damage was done. The ice was strong enough to bear dog teams to-day. Some fish were caught through the ice. Sled fixing. Thermometer, 10° to 0°.

November 19, 1895.—Clear, with a light east wind. Some fish brought. Thermometer, 6° to 4°.

November 20, 1895.—Cloudy, with a little snow flying, and very strong east wind all night and day. Thermometer, 4° to 29°.

November 21, 1895.—Cloudy and snowing nearly all day, with a light east wind. The herders are all complaining that they are suffering from cold, as they have not sufficient clothing. Two of the herders have been supplied with artegas by the Lapps. Moses's wife is staying in Nook.

November 22, 1895.—Cloudy and calm; a little snow fell. Mrs. Kemi was delivered of a fine boy; both doing well. Thermometer, 30° all day.

November 23, 1895.—Cloudy, with gusts; thawing. The superintendent issued the supplies to-day. Thermometer, 33°.

November 24, 1895.—Cloudy, calm, with a light drizzling rain; thawing. Sunday school and service. Considerable cough around. Thermometer, 35°.

November 25, 1895.—Clear, nice, calm day. Thermometer, 25° to 28°.

November 26, 1895.—Clear, with a strong north wind in the evening.

Last night a young married man in the village was to be initiated as a shaman, and hanging without being strangled was the test. He was taken down a corpse, and, despite the efforts of all the shamans on the coast, remained so. The natives say he was a poor doctor, and so was strangled. Thermometer, 27° to 8°.

November 27, 1895.—Clear and calm, with gusts from the north during the night. Thermometer, 7° to 12°.

November 28, 1895 (Thanksgiving Day).—Clear, nice, calm day. The day was celebrated by hoisting the flag. Some work was done around the station, and Kummuk, Wocksock, and Mikkell were out seal hunting. Kummuk and Mikkell each shot one. In the evening the superintendent gave a party to the herders, treating to tea and cake. A sled left for Antisarlooks (Charley's) and down the coast. Thermometer, 2° to 4°.

November 29, 1895.—Cloudy, with strong wind from the east in the forenoon. Clear and calm in the evening. Two sleds came in from the lakes. Thermometer, 10° to 27°.

November 30, 1895.—Overcast, with a strong wind blowing from the south all day, becoming a gale, with snow and rain, in the afternoon. My stovepipe blew down. The ice piled up high on the beach and the tide was very high at noon. Late last night Per and herders came in from the camp. Moses is suffering from the charge of powder from an exploded cartridge having lodged in his face and eyes. He was hauling the levers of a loaded rifle in the hut, and a cartridge lodging, he tried to force it and exploded it. The bullet passed out through the muzzle, nearly hitting Dunnuk's wife, the shell and powder striking Moses. The superintendent and I tried to extract the powder from the eyes, but with the instruments at our disposal did not succeed. Cold bandages were applied. Thermometer, 30° all day.

December 1, 1895.—Cloudy and calm. Sunday school. All the herders attended, and many from town. Thermometer, 30° all day.

December 2, 1895.—Clear and nice, with light west to south wind. Ahlook, Elektoona, Wocksock, Okwitkoon, and Sekeoglook went out to the herd. Johann and Mikkell went out to bring in driving deer to the station. Thermometer, 30° all day.

December 3, 1895.—Cloudy, with strong south wind at 2 p. m., with two hours' heavy snowing. Moses's eyes are very bad. Thermometer, 30° all day.

December 4, 1895.—Cloudy, with some snow in the evening. Medium strong south wind after dark. Samuel, Kummuk, and Tau-took were sent to the moss yard with the dogs and four sleds. Aslak and Mathis came in from the herd. Moses's eyes are getting worse and after another vain trial to remove the powder it was decided to try and send him to St. Michaels in hope of finding a doctor. Thermometer, 31°, stationary.

December 5, 1895.—Cloudy and snowing, with medium east wind. Aslak and Mathis came in late. Thermometer, 15° to 20°.

December 6, 1895.—Cloudy, with a little snow falling. Thermometer, 18° to 23°. Wind south-southwest, ending with a strong northeast wind. The moss party with 14 deer arrived about 11 a. m.

December 7, 1895.—Strong north wind all night and day, with drifting snow. Colder; thermometer, 3° to 10°. Johann went out to the herd to get Okwitkoon home to go with Moses to St. Michaels. Wood is getting to be a scarce article around the station. A deer was butchered—a male that had been troubled with a sore shoulder all summer. The shoulder was broken and matter had formed in the fracture.

December 8, 1895.—Cloudy, cold, clammy, chilly, with strong northwest winds at times, with calm intervals. Sunday school and service. Thermometer, 13° all day.

December 9, 1895.—A snowstorm raging all night and day, blowing a gale. The snow drifted badly in and around the house. Kjellmann moved down from his room upstairs on account of the cold. Johann and Okwitkoon came home last night, reporting a fearful storm in the mountains.

December 10, 1895.—Cloudy, with a light northwest wind. Thermometer, 12°. Some wood was hauled with deer. A gale during the night.

December 11, 1895.—Storm from the north, with snow. Thermometer, 12° to 15°. No school on account of the storm.

December 12, 1895.—Cloudy and stormy, with light north wind, changing to northeast and becoming very strong after dark. The school house is proving very cold. Thermometer, 12° to 2°.

December 13, 1895.—Clear and calm. Wood hauled. Thermometer, 8° to 10°.

December 14, 1895.—Clear and calm. Wood hauled. Thermometer, 10° to 13°.

December 15, 1895.—Cloudy, with gusts of wind from east to southeast. Milder; thermometer, 10° to 20°. No Sunday school, as I was sick with a cold.

December 16, 1895.—Cloudy and storming from east. Per, Fredrik, and Wocksock came down from the herd. Thermometer, 28° all day.

December 17, 1895.—Cloudy, with medium strong east wind. Mikkel, Johan, and Dunnuk went out to the mountains for birch for harness trees. Samuel, Fredrik, and Tautook went for moss. Thermometer, 18° to 28°.

December 18, 1895.—Clear, with light east wind. Moses and Okwitkoon left at 8.30 a. m. for the south. Thermometer, 12° to 18°.

December 19, 1895.—Clear and calm. Thermometer, 15° to 3°. Per and Wocksock went out to the herd. The moss party returned in the night; also Moses, as the dogs were in such condition that they could not pull the sled.

December 20, 1895.—Clear and nice, very light east wind. Moses went to Nook to bring his wife home. Thermometer, 5° to 0° . A little wood hauled. A sled arrived from Eaton River.

December 21, 1895.—Clear, with medium strong north wind, turning to north-northeast. Johan, Mikkell, and Dunnuk, returned from the mountains. Thermometer, 0° to 7° .

December 22, 1895.—Clear and calm, with ice film in the air. Sunday school in herders' room. Thermometer, 12° to 15° .

December 23, 1895.—Clear and cold, with gusts of wind from the north-northeast. Mathis arrived with all the herders from the camp, leaving only Per and Aslak with the herd. Many visitors are here to take in a dance in the village. Thermometer, 18° to 20° .

December 24, 1895.—Clear and cold, with a medium north-northeast wind. Thermometer, 20° to 24° . The natives (106) got their Christmas cheer, and in the evening the children were entertained with a Christmas tree. Two sleds arrived from the cape, but no letters from Hanna.

December 25, 1895.—Iced fog, with light northwest wind. Thermometer, 18° to 21° . Service, and Samuel's baby was baptized. Lapps and Eskimo herders were entertained at Brevig's in the evening. Patients are very numerous now. Letters arrived from Golovin Bay.

December 26, 1895.—Clear, calm, frost-laden air. Thermometer, 22° to 30° . Some trading.

December 27, 1895.—Clear and calm. Thermometer, 22° to 24° . The station people were entertained in the schoolhouse on tea and cake.

December 28, 1895.—Clear, cold, with medium strong north-northeast wind in forenoon; calm in afternoon. Thermometer, 28° to 31° .

December 29, 1895.—Hazy, with light north wind. Sunday school. Thermometer, 22° to 26° . Cape sleds left early in the morning.

December 30, 1895.—Clear, calm, and cold. Thermometer, 18° to 21° .

December 31, 1895.—The Nook people received their entertainment. A melancholy day. Clear, cold, calm. Thermometer, 26° to 22° . Mathis, Fredrik, Johan, Mikkell, Tautook, Moses, Kummuk, and Dunnuk went out to the herd.

January 1, 1896.—Cold, clear, calm. Thermometer, 29° to 34° . No service, as the Lapps were at the tent. Soon after dark Mr. Hultberg, from Golovin Bay, and Mr. Howard, from the St. James Mission, on the Yukon, arrived with natives to take a herd of deer with them. They had made the trip in five days, traveling only four days.

January 2, 1896.—Clear, cold, calm; talking and trading. Thermometer, 29° to 24° .

January 3, 1896.—Clear and calm. A fine aurora last night. Thermometer, 20° to 10° .

January 4, 1896.—Clear and calm. Wood hauled by deer. Thermometer, 12° to 8°.

January 5, 1896.—Cloudy, with drifting snow; light northwest wind. Sunday school and service. Johan and Mikkell returned from the herd with five deer to be butchered. Thermometer, 12° all day.

January 6, 1896.—Cloudy, with light northwest wind and flying snow. The deer were butchered. Thermometer, 10° to 12°.

January 7, 1896.—Cloudy, with medium strong northwest wind and moving snow. Thermometer, 18°.

January 8, 1896.—Clear, with light northwest wind. Johan went out to bring home Mathis and Moses and prepare for leaving with the herd. Thermometer, 18° to 21°.

January 9, 1896.—Clear, calm, and cold; thermometer, 21° to 18°. Several sleds arrived from the cape with letters from Hanna, Moses, Mathis, and Aslak. Came in from the herd; one deer broke loose on the way and returned to the herd.

January 10, 1896.—Clear, calm, and cold; thermometer, 25° to 22°. Moses went out to Nook and brought back his wife, preparing to go with the herd. Mathis is preparing to leave, but will not go without another Lapp family with him.

January 11, 1896.—Cloudy, with medium east wind; thermometer, 12°. It was at last decided that Aslak and family should go with the herd to Golovin Bay.

January 12, 1896.—Cloudy and mild; thermometer, 12° to 10°. Sunday service with communion and Sunday school. One deer was strangled last night while tethered. Light southeast wind.

January 13, 1896.—Cloudy and snowing all day, with light east to southeast wind. Aslak and family, Moses and wife, Okwitkoon, and Martin left. Mathis also went out. Th. Kjellmann went out to the herd. Mikkell and Ahlook will go with them to Golovin Bay and bring the extra deer and sleds back. Thermometer, 10° to 24°.

January 14, 1896.—Cloudy in the morning and clear in the afternoon. Thermometer, 26° all day. Sungoo (a native of Nook) brought in a stray deer that he had found near his village, for which he was rewarded. It was the one that had got loose from behind Moses's sled. Tatpan arrived about dark from Antisarlook's reporting, all well and 172 deer in the herd.

January 15, 1896.—Partly overcast, mild, and calm. Thermometer, 23° all day. Twenty-seven pupils to-day. The superintendent is taking an invoice of Government property and supplies.

January 16, 1896.—Cloudy, calm, and mild. Thermometer, 28°. Rumors of whisky distillation are in circulation in the village.

January 17, 1896.—Clear, with a light northeast to east wind. Thermometer, 10°.

January 18, 1896.—Partly overcast, with strong north-northeast wind. Thermometer, 10° to 3° below zero.

January 19, 1896.—Clear, calm, and nice day. No service or Sunday

school. Kjellmann and Johan arrived about 2 p. m. very tired. The herd had left Friday evening. Dunnuk went with the herd instead of Ahlook, as he was acquainted with the path. A deer had been butchered at the tent, as the herders were entirely without provisions and starving. Thermometer, 12° to 18° below zero.

January 20, 1896.—Clear, calm, cold. Thermometer, 20° below zero all day. Charley arrived in the evening. Very cold in the school.

January 21, 1896.—Clear, calm, cold. Thermometer, 28° to 22° below zero.

January 22, 1896.—Clear and cold. Thermometer, 18° to 12° below zero. Strong southeast wind in the morning. Light east wind during the day.

January 23, 1896.—Clear in the forenoon; clouding over toward evening; getting milder. Thermometer, 12° to 2° below zero. Per and Kummuk returned to the herd with provisions. Samuel and Fredrik went for moss about dark. Joe came down from Palazruk toward dark. General woodcutting.

January 24, 1896.—Clear, fine day, and calm. Thermometer, 8° to 8° below zero.

January 25, 1896.—A very fine day; clear and calm. Thermometer, 2° to 8° below zero.

January 26, 1896.—Clear, calm, and mild; frozen fog in the evening. Sunday service. Samuel and Fredrik returned with moss in the evening. An old man died in the village to-day, and after he had been buried the whole village was on the roof, burning and throwing fire-brands toward the grave and howling. When asked why, they answered "So that the dead should not come back." Thermometer, 8° to 10° .

January 27, 1896.—Clear in the afternoon, light clouds in the morning. Strong north wind during the night, medium strong during the day. Thermometer, 5° to 12° . The herd, according to Per's account, numbers 333.

January 28, 1896.—Clear, nice day. Calm. Thermometer, 8° to 6° . Wood hauled with six deer. A sled arrived from Kotzebue Sound. Twenty-eight pupils in school.

January 29, 1896.—Clear, with a strong north wind during the night. The natives are complaining of little food. Thermometer, 8° to 11° .

January 30, 1896.—Cloudy, with medium-strong wind. Snow flying. Two sleds arrived from the cape with letters from Mrs. Hanna. A tunnel was made through the snow to the main entrance of our house. Thermometer, 15° to 8° .

January 31, 1896.—Clear, calm, and cold. Thermometer, 8° to 14° .

February 1, 1896.—Overcast in the afternoon, strong east wind, with drifting snow. The cape sleds left. Thermometer, 20° to 22° .

February 2, 1896.—Blizzard from northeast, turning toward the north during the night; drifting very bad. Thermometer, 15° .

February 3, 1896.—Cloudy, with medium strong north wind. Thermometer, 13° to 17° .

February 4, 1896.—Clear and cold, with a light north wind. Thermometer, 28° to 22° .

February 5, 1896.—Clear and very cold, with light east wind. Thermometer, 32° to 29° . Samuel, Tautook, and Mathis arrived from the herd last night, and report all well at the herd, but no food for the herders.

February 6, 1896.—Clear, cold, and calm. Fredrik, Samuel, and Sekeoglook went after moss. Thermometer, 32° to 25° . But two children from the village attended school.

February 7, 1896.—Clear, cold, and calm. Thermometer, 29° to 23° .

February 8, 1896.—Clear, cold, and calm. Thermometer, 27° to 25° . The moss party returned during the night. The herders received their provisions.

February 9, 1896.—Clear, cold, and nearly calm. Strong east wind during the night. Service in the forenoon. About 4 p. m. Mikkell and party returned from Golovin Bay, reporting the herd well through, without any lost. It took 8 dogs to make the trip. A girl from the Swedish mission arrived to help Brevig during the spring. Thermometer, 26° to 24° .

February 10, 1896.—Clear and cold, with light east wind. Thermometer, 31° to 27° .

February 11, 1896.—Clear and cold, growing milder. Thermometer, 24° to 16° . Medium strong north wind. The superintendent and Johan, according to rumor, went out grouse hunting. They did not return.

February 12, 1896.—Clear and cold, with very light east wind, getting milder. The superintendent and Johan returned without any grouse. Thermometer, 32° to 17° . Sleds arrived from the cape. No letters from the Hannas.

February 13, 1896.—Clear, cold, very light southeast wind. Mathis and family and Elektoon went out to the herd. Fredrik went along to bring in fresh deer.

February 14, 1896.—Clear, calm, cold. No mail, no valentines. Thermometer, 30° to 28° .

February 15, 1896.—Clear, with light east wind. Cold— 35° to 29° below zero. Wood hauling and cutting. The cape sleds left.

February 16, 1896.—Clear; cold, with light east-southeast wind. Thermometer, 34° to 29° below zero.

February 17, 1896.—Clear and cold, with light east wind. At 1.30 p. m. the superintendent, with Mikkell, Johan, Dunnuk, Wocksock, and Tautook, left with four deer and the dog sled for the moss place to bring home the whaleboat touched there, as it is rumored that the natives are spoiling it. Samuel brought wood. Thermometer, 34° to 27° below zero.

February 18, 1896.—Clear and cold. Thermometer, 34° to 29° below

zero. Variable winds and strong, in gusts. At 3 p. m. Frank Kameroff, with a native trader, arrived with two sleds of trade goods from Mr. Dexter, Golovin Bay. The superintendent and party returned at dark, leaving the boat 3 miles back. Influenza is making its professional call.

February 19, 1896.—Strong north wind; drifting. No school on account of the storm. Thermometer, 34° to 26° below zero.

February 20, 1896.—Clear and cold. Calm in the afternoon. The whaleboat was brought in to-night. Per, Ahlook, Elektoon, Fredrik, and Kummuk came in from the herd. Two deer dead from fighting.

February 21, 1896.—Cloudy and light southeast wind. Thermometer, 24° to 11° below zero.

February 22, 1896.—Clear; fine day. The flag was hoisted. At 8.30 Kameroff, the superintendent, and Agitarlook left for the cape. In the evening Soquin and wife arrived, but no tidings from Mr. Hanna. Thermometer, 18° to 25° below zero.

February 23, 1896.—Clear, with gusts of wind from southeast. Sunday school and service. The sails and oars of the whaleboat were brought in by natives. Thermometer, 27° to 21° below zero.

February 24, 1896.—Clear and calm. Twenty-nine pupils at school. Considerable fish was brought in and traded. Thermometer, 22° to 12° below zero. Per, Tautook, and Sekeoglook went out to the deer camp. Fredrik was sent up to bring some more sled deer down.

February 25, 1896.—Clear in the morning, clouding over, medium east wind. Fish traded. Thermometer, 23° to 13° below zero.

February 26, 1896.—Milder, with light southeast wind and snow till 5 p. m., when it cleared up with a brisk wind from the north. Snow drifting. Thermometer, 15° to 3° below zero. Mikkell, Wocksock, and Ahlook left for moss in the morning; considerable fish traded.

February 27, 1896.—Clear, with medium strong wind, becoming stronger toward dark. At 8 p. m. Widstead, Mrs. Hanna, and Johan arrived from the cape, having been two days on the way.

February 28, 1896.—A howling storm from the northeast during the night. The wind veered to east and southeast in the forenoon, snowing and drifting badly. Fredrik arrived from the camp, having failed to go to the moss camp, as directed. Sekeoglook had lost his gun and bread sack. The gun was found, but not the bread. Milder. Thermometer, 3° to 16° below zero.

February 29, 1896.—The storm continued, with snowing and drifting. The moss party returned toward dark, from 7 to 8 p. m. Kameroff and four more sleds arrived from Canoughguk against the storm.

March 1, 1896.—Strong southeast wind and snow. Thawing. Thermometer, 29° to 33° . Sunday school and service in Eskimo, with Kameroff and Erick as interpreters. Two sleds arrived from Golovin Bay. Carl Brevig was taken very sick at 3 p. m.

March 2, 1896.—Strong south wind, with snow. Carl Brevig's illness increased, and he died at 2 a. m. from what appeared to be

cholera. He suffered much the last twelve hours, and the death struggle in convulsions was severe. Thermometer, 20° all day. Preparations were made for the funeral. A cape sled arrived from Golovin Bay.

March 3, 1896.—Carl Brevig was buried in the forenoon. Service was held in the schoolhouse in English and Eskimo by the assistance of Cameroff and Erick as interpreters, and in Norwegian at the grave. Clear, calm, and beautiful day. In the evening a beautiful auroral display. Thermometer 22° all day. The dogs had attacked the skin boat and eaten part of it.

March 4, 1896.—Clear, calm, and very beautiful day. Thermometer 22° all day. The cape sleds all left in the morning. One sled arrived. The superintendent, with the assistance of Kameroff, gave the herders a talk.

March 5, 1896.—Partly overcast, storming during the day and all night, and snow drifting. Kameroff, with three sleds, left at 11 a. m. Thermometer, 10° to 15° .

March 6, 1896.—Clear, but blowing and drifting all day and night. At 2 p. m. the wind was very strong from north-northeast. Thermometer, 10° to 4° .

March 7, 1896.—Clear, with a strong north-northeast to north wind all night and day. Colder, 12° to 5° . A sled left for Kotzebue Sound. Wood hauling. Two cats killed by the superintendent.

March 8, 1896.—Clear, with strong shifting winds. Service and Sunday school. Mathis reports all well at the herd. Thermometer, 22° to 18° below zero.

March 9, 1896.—Cloudy, with some snow flurries; strong northwest wind. Barrels and hogsheads were put in through the snowdrift against the house to admit a little light to the windows. Thermometer, 18° to 14° below zero.

March 10, 1896.—Blizzard from the northwest all night and day, clearing about dark. No school on account of the weather. Thermometer, 18° to 22° below zero.

March 11, 1896.—Clear, calm, cold, quiet. Mathis and Elektoon went out to the herd. Twenty-six children attended school. Thermometer, 22° to 15° below zero.

March 12, 1896.—Clear and nice, with gusts of wind until 4 p. m., when a furious storm set in from the northeast. Two sleds arrived from the cape with letters from Mr. Hanna. Three of the herders went after wood, and Johan, Mikkell, and Ahlook went after moss. Thermometer, 22° to 12° below zero.

March 13, 1896.—Clear, but storming and drifting, accompanied by shoveling snow and cutting wood. Thermometer, 15° to 13° below zero.

March 14, 1896.—Clear, with a strong northeast wind and drifting. Rations were issued. Thermometer, 18° to 14° below zero.

March 15, 1896.—Cloudy and overcast, with strong, varying winds
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and snow. The moss gang returned in the afternoon. Sunday school. Thermometer, 6° to 10° below zero.

March 16, 1896.—Cloudy, with light north wind. Snowing and drifting all day. The moss was brought in to the station. Thermometer, 0° to 12° .

March 17, 1896.—Cloudy and snowing all day and night. Nearly calm. The superintendent was out hunting part of the day. Thermometer, 10° to 24° .

March 18, 1896.—Clear, with a gale through the night from northeast, continuing all day, abating toward evening. Snow drifting badly. Thermometer, 15° to 50° .

March 19, 1896.—Cloudy, with a very strong east wind in the forenoon, veering southeast in the evening. Drifting badly. The sled deer were attacked by the dogs in the village this morning and one was severely bitten. A pack attacked the passing sleds and, partly through mismanagement of Samuel, one of the deer was bitten badly. A sled was broken up and used as a weapon to strike with, and one dog, being caught under the sled, was dragged a long distance, Samuel holding on to one hind leg. Measures have been taken to protect the herd in the future. The superintendent's cook left him last night and tried to come back again to-night. Thermometer, 10° to 22° .

March 20, 1896.—Clear at noon; wood hauling; some snow fell. Thermometer, 15° .

March 21, 1896.—Clear in the forenoon, overcast in the afternoon; calm. Thermometer, 10° to 12° . Ration day for herders. Per and Tautook came in from the herd during the night, and reported all well.

March 22, 1896.—Cloudy; snowing all day; calm. Service, with communion and Sunday school. Mild; thermometer, 15° to 24° .

March 23, 1896.—Cloudy, with sleet at times. A gale commenced to blow from the south at 9 a. m., lasting all day and evening. The tar paper and batting were torn from the storehouse roof, scattering the fragments over the tundra. Fredrik left three deer in the shed, and some one left the door open, and the deer walked off. Thermometer, 27° .

March 24, 1896.—Clear and nice, with medium-strong west wind. Mikkell and Fredrik tracked the deer toward the herd. Thermometer, 10° to 26° .

March 25, 1896.—Clear and nice, with light west wind. Per, Tautook, and Johan went out to the herd. Wood was hauled. A sled arrived from the south. Clouding over about dark. Thermometer, 10° to 15° .

March 26, 1896.—Clear and nice, with a light north wind. Netoxite arrived from the cape to bring Mrs. Hanna home. Growing colder. Thermometer, 10° to 7° .

March 27, 1896.—Clear, calm, cold. Service and Sunday school. Thermometer, 5° to 12° .

March 28, 1896.—Clear, calm, nice day. Thermometer, 15° to 5° . Johan returned late last night from the herd. Hauling wood.

March 29, 1896.—Overcast in the afternoon, with strong east wind and snow drifting a little. Easter service and Sunday school. Thermometer, 12° to 6° . Some work was done around the station in the afternoon. Opening cases of crackers and preparing for a trip to Antisarlook's.

March 30, 1896.—Overcast and snowing nearly all day. Thermometer, 10° to 18° . Shortly after dinner "Nahzook," Kummuk's wife, was delivered of a fine girl baby, and both mother and child are doing well.

March 31, 1896.—Clear, with a strong north-northeast wind, abating toward evening; snow flying. Antisarlook arrived early in the morning with the carcass of a deer. He had lost nine in a storm by being caught in an avalanche of snow. Thermometer, 10° to 6° .

April 1, 1896.—Clear, calm, nice day. Thermometer, 5° to 15° . The superintendent and Johan left for Antisarlook's place this morning; also Dunnuk and wife, Antisarlook and boy, and two other sleds, one of which returned. Wood was hauled and some fish traded.

April 2, 1896.—Clear and calm, clouding over at sunset. Mikkell, Fredrik, Ahlook, and Wocksock went after moss. At 7 p. m. Mathis and Sekeoglook came in from the herd, reporting all well at the herd. The deer that strayed from the station have not come into the herd. They had been within a few miles of the flock, and then had turned toward the north. Thermometer, 4° to 0° .

April 3, 1896.—Cloudy in the morning, clearing in the evening. A calm, fine day. Very quiet around the station. Thermometer, 0° to 15° .

April 4, 1896.—Clear, with a very light east wind. Provisions were issued to Mathis Eira and the Eskimos at the herd and station. Thermometer, 5° to $+10^{\circ}$.

April 5, 1896.—Clear, with a very light east wind. Thermometer, -7° to $+5^{\circ}$.

April 6, 1896.—Clear, nice calm day. The moss party returned about noon. Thermometer, -7° to $+12^{\circ}$.

April 7, 1896.—Clear and calm. The superintendent returned during the night and reports Antisarlook's deer 155 in number and in a splendid condition. A cape sled arrived in the evening. The Lapps hauled wood. Thermometer, -2° to $+13^{\circ}$.

April 8, 1896.—Clear and calm. Thermometer, $+2^{\circ}$ to $+16^{\circ}$.

April 9, 1896.—Clear and nice, calm. Thermometer, -5° to 20° . Dunnuk and family returned to-night from Charley's. The family had been increased with a little girl while on the visit.

April 10, 1896.—Clear and nice, with a snow flurry and gust of wind

from the southeast toward evening. Wood hauled. Thermometer, $+10^{\circ}$ to $+15^{\circ}$.

April 11, 1896.—Overcast, with light snow all day. Thermometer, $+8^{\circ}$ to $+14^{\circ}$.

April 12, 1896.—Overcast, with strong southeast to southwest wind and snow. Service, but no Sunday school.

April 13, 1896.—Overcast, with snow, sleet, and rain, with a strong south wind all day and thawing a little. Thermometer, $+20^{\circ}$ to $+35^{\circ}$.

April 14, 1896.—Clear at times, with cloudy intervals. Strong west to southwest wind, becoming easterly. The superintendent, Johan, Fredrik, Ahlook, and Dunnuk went out to the herd this morning.

April 15, 1896.—Clear and calm in the morning, snowing and blowing in the afternoon. Dunnuk's baby died last night and buried, but nothing was said until this evening. Letters arrived from Mr. Hanna. Thermometer, $+15^{\circ}$ to $+24^{\circ}$.

April 16, 1896.—Calm during the day. Cloudy, with some snow. At 5 a. m. a gale commenced to blow from the south, accompanied by snow, thawing a little. Thermometer, $+20^{\circ}$ to $+34^{\circ}$.

April 17, 1896.—Cloudy and storming, a very strong south to southwest wind during the night. Some snow falling during the day. Mrs. Brevig has been sick all day. Thermometer, $+16^{\circ}$ to $+10^{\circ}$.

April 18, 1896.—Clear in the morning and mild, clouding over in the evening, with a light north wind. At 11.58 p. m. (last night) Mrs. Brevig was delivered of a 7-pound girl. Mother and child are doing well. Th. Kjellmann gave out the rations to-night, as the superintendent had not returned from the herd yet. Thermometer, $+10^{\circ}$ to $+15^{\circ}$.

April 19, 1896.—Clear and cloudy, windy and cloudy. No service or Sunday school, as herders and Lapps were all absent from the station. The superintendent returned late in the evening. Dunnuk and Tautook came in with him, as he had failed to send any provisions with them; there were none at the camp. Thirty fawns and two still-born. Thermometer, 7° to 5° .

April 20, 1896.—Clear in the morning, cloudy and snowing in the afternoon. Strong east wind. Thermometer, 5° to 10° .

April 21, 1896.—Cloudy; snowing all day. East wind, veering to the south; becoming milder. Thermometer, 10° to 21° . Letters arrived from Moses at Golovin Bay.

April 22, 1896.—Genuine Alaska weather all night and day. Strong south-southwest wind, with snow and sleet all night and day. Thawing. Thermometer, 34° all day.

April 23, 1896.—Calm, with occasional sunbeams in the forenoon. Clouding over with a strong northeast wind in the evening. Tautook, Dunnuk, and Wocksock, with their families, went up to the herd; also Samuel, Johan, and Mikkel went after moss. Kummuk refused to go, and was discharged. Mild. Thermometer, 33° to 45° .

April 24, 1896.—A gale from northwest during the night, abating some in the forenoon. The snow had drifted badly and all the entrances were blocked up. Clear and calm in the afternoon. A sled came in in the morning reporting 27 fawns at Antisarlook's place. Kummuk refused to leave the station. Thermometer, 5° to 15° .

April 25, 1896.—Clear and calm during the day, but a fresh north wind during the night. Netaxite arrived from the cape. Very quiet around the station. Thermometer, $+5^{\circ}$ to $+15^{\circ}$.

April 26, 1896.—Clear and calm till 7 p. m., when it clouded over. Thermometer, -5° to $+12^{\circ}$. No Sunday school or service, as herders and Laplanders were all away from the station.

April 27, 1896.—Partly overcast, with medium strong east wind. Mrs. Hanna left for home at 6.30 this morning, also two other sleds left for the cape. Some fish were brought in and bought. Mrs. Brevig was up for a short time during the day. A little snow fell. Johan and Mikkel returned. Thermometer, -5° to $+12^{\circ}$.

April 28, 1896.—A gale from northwest all day and night, snow flying. Thermometer, $+22^{\circ}$ to $+7^{\circ}$.

April 29, 1896.—Clear, with medium strong northwest wind. A sled arrived from Polognik for provisions. Thermometer, 0° to $+5^{\circ}$. Wood was hauled.

April 30, 1896.—Clear and calm, with a rising northwest wind after 7 p. m. The Poloznik sleds left at 11 a. m. with flour, bran, and middlings. Thermometer, -3° to $+10^{\circ}$.

May 1, 1896.—Clear, with a strong north wind. Fredrik and Elektoon arrived for provisions for the herders and report all well at the herd; about 100 fawns, and 7 dead. There is scarcity of food among the Eskimos, as the seal hunting and tomcod fishing has proved a failure. Thermometer, -5° to $+12^{\circ}$.

May 2, 1896.—Clear and calm. Fredrik and Elektoon left for the herd with provisions in the afternoon. Letters arrived from Hanna. Thermometer, $+16^{\circ}$ to -2° .

May 3, 1896.—Clear, with a strong north-northeast wind all day and night. Snow flying. No service or Sunday school, as Lapps and herders were away from the station. Thermometer, $+20^{\circ}$ to $+10^{\circ}$.

May 4, 1896.—Clear, with a light southeast wind. Strong north-northeast wind during the night. The superintendent took a trip on snowshoes in the afternoon. Thermometer, $+10^{\circ}$ to $+20^{\circ}$.

May 5, 1896.—Clear and calm till toward evening. Johan and Mikkel with their families went out toward the moss hut with the deer, to keep them where the moss is not so thickly covered with thick, hard snow. Thermometer, $+12^{\circ}$ to $+26^{\circ}$.

May 6, 1896.—Clear and calm. In the evening some snow fell. At 4 p. m. Antisarlook, Mr. Johnson, and Rock, their native interpreter, came. The two latter are out on a missionary trip to last till after the ships arrive. Thermometer, $+15^{\circ}$ to $+28^{\circ}$.

May 7, 1896.—Overcast, with a light snowfall. Calm. Service in Eskimo by Brevig, with the assistance of Mr. Rock. Thermometer, $+10^{\circ}$ to $+33^{\circ}$.

May 8, 1896.—Clear, nice weather. Service in Eskimo by Mr. Johnson and Rock. Thermometer, $+17^{\circ}$ to $+26^{\circ}$.

May 9, 1896.—Clear and nice, with a light north-northeast wind. At 10.30 Brevig and Rock left for a place down the coast between Antisarlook's and Cape Nome. Antisarlook's and another sled left at the same time.

May 10, 1896.—Clear, with a strong northeast wind in the forenoon. Calm and mild in the afternoon.

May 11, 1896.—Strong northeast wind all day. A native woman came in and reported she had seen a deer and fawn in the mountains back of the station. The superintendent went out and found them. Kummuk was sent out to watch them.

May 12, 1896.—Clear and bright; a strong northwest wind, and drifting badly. The superintendent went out to the moss party on skis to bring back a Lapp and deer to hunt for the stray deer. Johan came back with two deer. Kummuk had not found the deer last night.

May 13, 1896.—Clear and bright. The superintendent started out in search of the deer in the evening, taking Johan along.

May 14, 1896.—Foggy in the morning; clearing, with light south-southwest wind; calm in the evening; mild. Brevig and Rock returned in the afternoon, 12.30 p. m., from Ah haw look, having traveled every day for six days. Service after supper.

May 15, 1896.—Clear and calm; thawing a little. In the evening the superintendent and Johan returned, having followed the deer into the mountains; they could not come within rifle range of it. Mikkel and wife and Johan's wife and child returned from the moss hut. Samuel and Sekeoglook came in from the herd, reporting all well and the camp 2 miles nearer the station. Thermometer, $+15^{\circ}$ to $+35^{\circ}$.

May 16, 1896.—Clear and calm. Thermometer, 20° to 40° . Seal oil prepared for the camp.

May 17, 1896.—Clear and calm. Thermometer, 25° to 43° . Service, with baptism of "Dagny Alaska" Brévig. Eskimo service in the afternoon, but few attending. A few tents were erected on the beach by Noometes.

May 18, 1896.—Clear, calm; thawing. Thermometer, $+25^{\circ}$ to $+42^{\circ}$. Shoveling snow and opening tunnels in the afternoon.

May 19, 1896.—Clear and thawing; north-northwest wind in the afternoon. At 7 p. m. Kjellmann, Johnson, Rock, Samuel, and Sekeoglook left, all with deer for the herd. Thermometer, $+28^{\circ}$ to $+45^{\circ}$.

May 20, 1896.—Clear, with a strong north-northwest wind all day and night. Tidings were brought that the deer and fawn are yet in the mountains. Thermometer, $+12^{\circ}$ to $+31^{\circ}$.

May 21, 1896.—Clear, with a medium strong north wind. Several

sleds left for the sandpit, among which was Ah gaetarlook. Johann (Omelik) hauled wood. Thermometer, $+18^{\circ}$ to $+33^{\circ}$.

May 22, 1896.—Clear, with a medium strong north wind. Johan, Kjellmann, and Rock returned in the forenoon. Johnson's deer had the misfortune to break its leg as it left the camp. They reported about 120 fawns, 9 dead. Thermometer, 25° to 33° .

May 23, 1896.—Calm and clear. Dunnuk, Wocksock, Tautook and wife, and Ahlook came in from the herd for provisions. The superintendent came home late in the evening, his deer breaking his hip joint in coming down the hills behind the station. In the afternoon a deer tied out east of the station got scared by a dog and broke loose. Johan, Wocksock, and Ahlook went out after it with deer.

May 24, 1896.—Partly overcast; bright in the evening. Two services in Eskimo. The herders went out late in the evening with their provisions. Several loads of lake people arrived and left for the sandpit. The disabled deer was taken out to the herd strapped to a sled. Thermometer, 26° to 42° .

May 25, 1896.—Clear, calm, bright. At 7 p. m. Mr. Johnson and Rock left for the cape. Kummuk also left in the evening. Thermometer, 28° to 40° . Johan and Mikkell brought logs.

May 26, 1896.—Clear and calm. Thermometer, 30° to 40° . Late in the evening the superintendent, Johan, and Mikkell left for the site of building the herders' claim for next winter, with the logs brought for that purpose.

May 27, 1896.—Partly overcast the forenoon; clear, with a fresh north wind, in the afternoon. Fredrik and Elektoon came in for provisions in the night. Thermometer, $+28^{\circ}$ to $+39^{\circ}$.

May 28, 1896.—Clear and bright, with a light north wind, all day. Samuel came in during the night and reports six fawns and two dead, making the number of deer 327 and 133 fawns. Thermometer, $+29^{\circ}$ to $+41^{\circ}$.

May 29, 1896.—Clear, calm, nice. Thermometer, 28° to 46° . Nazook, Kummuk's wife and her children were taken over to the sandspit to-night by her nephew. She is very sick. Her old father went with her.

May 30, 1896.—Clear, warm, calm. Mathis left late in the evening. A sled arrived from the cape reporting one three-masted vessel sighted. He had water boots and waterproof skins to sell for flour, but the superintendent would not buy them, although the herders are asking for them and there are none at the station. Two white fox skins were bought. Wocksock sent in for water boots and was sent an old pair that Elektoon had discarded as useless last summer.

May 31, 1896.—Overcast, with a light shower in the evening. Johan and Mikkell returned in the morning early. The superintendent left on a hunting trip between 12 and 1 a. m. He returned in the evening. Kummuk came home about noon with letters from Hanna and

Johnson; also three of Johnson's dogs; 85 fawns reported at the cape and 8 dead.

June 1, 1896.—Clear, with a light north-northeast wind in the evening. Tidings were brought in that the deer and fawn up in the mountains were shot, but the name of the party could not be ascertained. A seal was offered for a box of tobacco, but not bought. Johan and Mikkell hauled wood. The tundra is nearly bare of snow.

June 2, 1896.—Clear, with a strong north-northeast wind all night and day. Johan and Mikkell brought wood in the night and are leaving again to-night for more wood. Tidings were brought in that a polar bear had been seen last night near Cape Riley by a native boy. Hunters that were out could not discover bear nor his tracks. It sounds like a hoax.

June 3, 1896.—Clear and bright, with a very strong north-northeast wind all night and day. Very quiet around the station.

June 4, 1896.—Clear, with strong north-northeast wind in the night and forenoon; calm in the afternoon. Per and Fredrik came in for their provisions. Johan and Mikkell were sent out after stones for a projected bath house, but as the bare tundra is not the best sleighing ground, the rocks had to be left some distance out. Provisions were issued to the Lapps.

June 5, 1896.—Clear and nice, with a fog in the evening. Dunnuk and Sekeoglook came in in the morning for provisions, and with Per and Fredrik went out again in the evening. At 6 p. m. Johan, Mikkell, and Brevig went up the lagoon, hunting.

June 6, 1896.—Clearing in the forenoon. Frost and fog during the night. The hunters returned at 7 a. m. with 15 birds. Calm, but chilly.

June 7, 1896.—Foggy in the morning; cold, with heavy frost during the night. Sunday service. Clear and bright in the afternoon. Per reported 132 fawns and 332 deer of the different kinds.

June 8, 1896.—Clear and calm till toward evening, when a light north wind with fog sprang up. Mikkell and wife went out to the herd to stay some time. Johan and Kjellmann also went out to bring in new deer and moss. The superintendent went out hunting in the evening. Tautook and wife came in early in the morning, she being sick from rheumatism. Tautook went up to the herd again in the evening.

June 9, 1896.—Snowstorm, with strong southwest to south wind all day and night; cold.

June 10, 1896.—Strong west wind during the night, abating some in the morning; snowing nearly all the forenoon; freezing.

June 11, 1896.—Partly overcast; light west wind; heavy frost last night; some fixing up around the house; very quiet.

June 12, 1896.—Clear in the afternoon; heavy frost last night; light west to northwest wind. Kjellmann and Johan returned late

last night and report one yearling died while giving birth to a large calf. Johan, Kjellmann, and the superintendent left late in the evening for the lumber beach to get material for a fist stanchion and oars for the small boats.

June 13, 1896.—Clear in the forenoon; a chilly fog in the afternoon and heavy frost in the night. The party returned in the morning and brought the dingy with them. Brevig has painted some of their rooms. Tautook came in in the evening.

June 14, 1896.—Partly clear; fog morning and evening and heavy frost in the night. No service or Sunday school, as all the herders are out at the camp and only one Lapp family at the station.

June 15, 1896.—Fog all day. The hunters returned shortly after dinner with 33 birds. Heavy frost during the night. House-cleaning processes in ferment.

June 16, 1896.—Overcast, with strong south wind and snow all day. Solitude reigns at Teller Reindeer Station.

June 17, 1896.—Overcast, with a heavy snowfall in the morning. Clearing up in the afternoon. Heavy frost in the evening. Johan, Widstead, and Brevig went up the lagoon hunting in the evening.

June 18, 1896.—Clear and nice, the snow from yesterday disappearing. The hunters returned about noon with 22 birds.

June 19, 1896.—Overcast, with a light west wind, and rain in the afternoon. Fredrik and Ahlook came in from the herd, reporting all O. K.

June 20, 1896.—Overcast in the forenoon, clearing in the evening. Ahlook and Fredrik left to-day. Tautook, Wocksock, Dunnuk, Elektoon, and Sekeoglook came in for their provisions to-day and left in the evening. The superintendent also went out later on. Cutting wood and cleaning up around the station.

June 21, 1896.—Overcast, with rain and fog in the forenoon, and part of the afternoon with light west wind. The wind changed to northwest at 5 p. m., and it cleared up. Sunday service.

June 22, 1896.—Snowing all forenoon, clearing in the afternoon. Medium strong north-northwest wind. It froze last night. The superintendent and Wocksock returned early in the morning.

June 23, 1896.—Clear and chilly. A very heavy frost last night. A door was put in from the hall into the superintendent's parlor. General cleaning up. The drift in front of the house had vanished partly, assisted thereto by the teacher's shovel. A man came in from the sandpit this morning and reports seal scarce.

June 24, 1896.—Overcast, with showers and shifting winds. Cleaning around the station. Very quiet.

June 25, 1896.—Strong southeast to southwest wind, with rain all day and night. At noon the wind ceased, but the rain continued all day and evening. Mikkel came down from the herd in the night and reported all well at both herds. He went up again this morning.

June 26, 1896.—Cloudy, with very light variable winds. A sled started from the sandpit crossing the bay on ice toward Cape Riley. Continued cleaning up around the premises.

June 27, 1896.—Cloudy in the morning, clearing up with a medium strong north-northeast wind. Mathis and Tautook came in from the herd. Mathis reported that the deer disabled by the superintendent is getting worse and will soon have to be killed. He wanted to get his provisions, as it is four weeks since he got his, and to have some remain at the herd while the rest get their provisions. He was refused, and was supplied by me with enough to eke out for himself and family to July 2, the regular provision day. Mrs. Kemi is very sick, and received the sacrament to-day. She seems near death. Samuel Kemi asked me to help him to get some help, as he had asked the superintendent, but he had refused to let him have any in the house. I engaged a boy to help him until there is a change.

June 28, 1896.—Clear and calm. Strong northeast wind during the night. Sunday service. In the afternoon Brevig and family went up on top of the hill back of the station and through the glass saw a ship off Kings Island.

June 29, 1896.—Clear and calm. Kummuk and Edd (whaler) came in from the sand pit across the ice and reported much ice outside. Inside the bay the ice remains the same. Mrs. Kemi is getting worse. A thin crust of ice had formed on the water last night. Mathis and Tautook left for the herd during the night and Wocksock left late in the evening. Brevig partly filled the ditch behind the house with débris and sand. Kummuk reported his baby dead and his wife very sick and food very scarce.

June 30, 1896.—A chilly fog nearly all day; calm, occasional very light winds from southwest in the afternoon. Carl Brevig's grave was decorated. The superintendent put down the carpet in his room. Mrs. Kemi remains the same. The ice is broken up some along the shores and open water is visible here and there.

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Meteorology at Teller Reindeer Station—Continued.

Date.	Temperature.				Precipitation.			Prevailing wind direction.	Character of day.
	7 a. m.	2 p. m.	9 p. m.	Maximum.	Minimum.	Mean.	Time of beginning.	Time of ending.	Snow fall, in inches.
1885.									
Dec. 10.	° 13	° 12	° 11	°	°	°			Cloudy.
11.	15	16	13			11.75			Do.
12.	15	16	13			14			Do.
13.	15	16	13			9			Partly cloudy.
14.	15	16	13			6.75			Clear.
15.	15	16	13			4.5			Cloudy.
16.	15	16	13			20.5			Do.
17.	15	16	13			27.5			Do.
18.	15	16	13			27.5			Partly cloudy.
19.	15	16	13			21.5			Clear.
20.	15	16	13			+ 8.25			Do.
21.	15	16	13			11.75			Do.
22.	15	16	13			1.5			Do.
23.	15	16	13			8.5			Cloudy.
24.	15	16	13			16.5			Clear.
25.	15	16	13			14.75			Partly cloudy.
26.	15	16	13			14.75			Do.
27.	15	16	13			15			Clear.
28.	15	16	13			28			Do.
29.	15	16	13			26.5			Do.
30.	15	16	13			22.25			Do.
31.	15	16	13			13.25			Do.
1.	20	20	20			25.25			Do.
2.	20	20	20			25.75			Do.
3.	20	20	20			11.5			Do.
4.	20	20	20			7.75			Partly cloudy.
5.	20	20	20			8.25			Clear.
6.	20	20	20			8.5			Do.
7.	20	20	20			20.25			Do.
8.	20	20	20			17.5			Do.
9.	20	20	20			22			Partly clear.
10.	20	20	20			10.5			Clear.
11.	20	20	20			13.5			Partly clear.
12.	20	20	20			32.5			Cloudy.
13.	20	20	20			25			Partly cloudy.
14.	20	20	20			25			Do.
15.	20	20	20			21.25			Cloudy.
16.	20	20	20			24.25			Clear.
17.	20	20	20			7			Do.
18.	20	20	20			7.2			Do.
1886.									
Jan. 1.	20	20	20			29			Do.
2.	20	20	20			25			Do.
3.	20	20	20			16.5			Do.
4.	20	20	20			10			Partly cloudy.
5.	20	20	20			7.5			Do.
6.	20	20	20			8.5			Clear.
7.	20	20	20			8.5			Do.
8.	20	20	20			2			Do.
9.	20	20	20			17.5			Do.
10.	20	20	20			22			Partly clear.
11.	20	20	20			12			Clear.
12.	20	20	20			13			Partly clear.
13.	20	20	20			35.3			Cloudy.
14.	20	20	20			27			Partly cloudy.
15.	20	20	20			25			Do.
16.	20	20	20			21			Cloudy.
17.	20	20	20			22.5			Clear.
18.	20	20	20			7.2			Do.

Time	Temp.	Wind	Bar.	Hum.	Clouds	Remarks
19.	-8		-8			Do.
20.	-15		-15			Do.
21.	-22.2		-22.2			Do.
22.	-17		-17			Do.
23.	-10		-10			Partly cloudy.
24.	1.8		1.8			Clear.
25.	4.5		4.5			Clear.
26.	3		3			Partly cloudy.
27.	-4		-4			Clear.
28.	-11.2		-11.2			Partly cloudy.
29.	-15.5		-15.5			Clear.
30.	-13		-13			Do.
31.	-14		-14			Do.
1.	-18		-18			Do.
2.	-20		-20			Do.
3.	-22		-22			Do.
4.	-27		-27			Do.
5.	-30.2		-30.2			Do.
6.	-34.5		-34.5			Do.
7.	-27		-27			Do.
8.	-25		-25			Do.
9.	-20.5		-20.5			Do.
10.	-30		-30			Do.
11.	-30		-30			Do.
12.	-20		-20.2			Do.
13.						Do.
14.	-27		-27			Do.
15.	-23		-23.5			Do.
16.	-24.5		-24.5			Do.
17.	-30		-30			Do.
18.	-30		-30			Do.
19.	-25		-25			Do.
20.	-18		-18			Do.
21.	-21		-21			Do.
22.	-13.2		-13.2			Do.
23.	-7		-7			Do.
24.	24		24			Do.
25.	29		29			Do.
26.	33.2		33.2			Do.
27.	23		23			Do.
28.	8		8			Do.
29.	1		1			Do.
30.	9		9			Do.
31.	19		19			Do.
1.	18		18			Do.
2.	11		11			Do.
3.	16		16			Do.
4.	18		18			Do.
5.	19		19			Do.
6.	2		2			Do.
7.	4.5		4.5			Do.
8.	3		3			Do.
9.						Do.
10.						Do.
11.						Do.
12.						Do.
13.						Do.
14.						Do.
15.						Do.

Meteorology at Teller Reindeer Station—Continued.

Date.	Temperature.					Precipitation.			Prevailing wind direction.	Character of day.
	7 a. m.	2 p. m.	9 p. m.	Maximum.	Minimum.	Mean.	Time of beginning.	Time of ending.	Amount.	Snow fall, in inches.
1898.										
Mar. 16	7	12.5	19	°	°	14.25				2
17	21	32	32	32	25	28.25				4
18	15	15	15	15	10	15	2 a. m.	Night		4
19	10	10	10	10	19	19				Trace.
20	19	19	19	19	13	13				
21	13	13	13	13	28.5	28.5	1 p. m.	Night		2
22	24	30	30	30	35	35				
23	32	36	36	36	16.5	16.5				
24	15	17	17	17	10.75	10.75				
25	10	10	13	7	6.75	6.75				
26	6	7	7	3	4.75	4.75				
27	10	3	3	3	8	8				
28	3	3.5	3.5		7.75	7.75				
29	9	6	6		24.25	24.25	10 a. m.	Night		4
30	15	22	32	32	9	9				
31	9	9	9							
Apr. 1	4									
2	5	10								
3	15	15								
4	0	12								
5	7	17								
6	2									
7	6									
8	9	8	8			8.25				
9	1	7	6			6				
10	5	17	12	13	9	13	3 p. m.	Night		1
11	2	10.5	17	14	31	14				2
12	5.5	17	17	34	36.75	36.75				
13	22.5	34	34.5							
14	36	36	36							
15	31.5	32	24							
16	27	35								
17	33	4	10			12.5				
18	16	22								
19	7									
20	16	20	20			18.75	7 a. m.			
21	30	54	54	42	25	42				1
22	33.5	38	38	37.25	25	37.25				4
23	33	42	42	37.75	21.75	37.75				Trace.
24	18	19	25	21.75	23.75	23.75				
25	11	28	28	23.75						

[illegible]

Meteorology at Teller Reindeer Station—Continued.

Date.	Temperature.				Precipitation.			Prevailing wind direction.	Character of day.
	7 a. m.	2 p. m.	9 p. m.	Maximum.	Minimum.	Mean.	Time of beginning.	Time of ending.	Snow fall, in inches.
1898.									
June 24.....	40	41	41	°	°	40.75	Evening		Cloudy.
25.....	40	40	41			40.5			Do.
26.....	40	41	41			40.75		1	Do.
27.....	50	58	63			53.5	Morning		Partly cloudy.
28.....	54	70	70			66			Clear.
29.....	60	80	80			56.5			Cloudy.
30.....	43	44	44			43.75		Trace.	Do.
July 1.....	41	44	44			43.25			Do.
2.....	38	40	40			38.5			Do.
3.....	43	59	79			65			NW.
4.....	47	60	70			61.75			N.
5.....	56	52	52			51.5			N.
6.....	47	50	50			49.25			NW.
7.....	49	49	63			56			NW.
8.....	46	49	63			55.25			N.
9.....	43	45	45			44.5			Do.
10.....	39	46	46			44.25	Morning		Do.
11.....	44						Night	3	Do.
12.....			63						Do.
13.....	46	73	73			66.25			N.
14.....	54	63	79			68.75			N.
15.....	56								N.
16.....									Do.
17.....		71	71						Do.
18.....	69	84	84			76.75			Do.
19.....	61	68	70			67.25			Partly cloudy.
20.....	68	68	68			68			Clear.
21.....	49	49	49			49			SW.
22.....	46	46	46			46			S.
23.....	44	48	48			46			Do.
24.....	44	53	58			47.25	Afternoon	2	Do.
25.....	44	53	58			53.25			Do.
26.....	47	50	52			50.25			N.
27.....	62	62	71			56.25			S.
28.....	47	54	62			56.5			S.
29.....	49	50	50			49.75			Cloudy.
30.....	45	54	50						Do.

NOTE.—From October 23 to 27 a visit was made to Cape Prince of Wales.

REPORT OF DOMESTIC REINDEER AT CAPE PRINCE OF WALES.

By THOMAS HANNA, *In Charge.*

CAPE PRINCE OF WALES, *July 1, 1896.*

SIR: I herewith send you a statement showing the number of reindeer in herd at Cape Prince of Wales, Alaska, on July 1, 1896; also number of fawns calved, number of deaths, causes, etc.:

Old deer in herd July 1, 1896.....	169
Calves in herd July 1, 1896.....	84
Total.....	253

Deaths of old deer during year:

Injured in fighting.....	8
Killed by dogs.....	1
Killed by herders for marriage feast.....	1
Died by causes unknown.....	2
Total.....	7

Fawns:

Killed by dogs.....	2
Killed by white foxes.....	3
Desertion of mother.....	3
Stillborn.....	3
From causes unknown.....	5
Total.....	16

There are at present in charge of herd five herders who might be called apprentices, as this is but third year of service for them in reindeer business.

It must be said that our herders have been faithful in detail during all seasons of the year.

We have sled deer trained, more than needed to do all the hauling of wood, station work, and pleasure driving.

We have been milking but little, mostly cows without fawns.

The collar harness made by Mr. Lopp we find best suited to our use.

The summer of last year and fall were very pleasant; the winter was one of intense cold and very long, the ice only breaking at present date, July 10.

There is no need of fear of deer not living in Alaska, when ours have turned out so well and increased so rapidly.

The families belonging to herders have taken deep interest in and care of them, providing some clothing and food when we had not an ample supply for their use. All the people are longing for deer. Many of the chief families would gladly take herds on Government conditions.

We ought to take at once, say, five apprentice herders, so as to have them trained in order that herds might be loaned at an early date. Can we promise such loan of herds? If so, I believe we could have apprentices without providing food and clothing or any cost whatever to our missionary board.

I have only to express the joy and hope that personally I feel in this great undertaking for this very deserving and needy people.

Hoping to have some words of cheer from you, I am, dear sir, very truly, yours,

THOMAS HANNA,
Superintendent and Teacher.

Dr. SHELDON JACKSON,
United States General Agent of Education in Alaska.

ANNUAL REPORT OF HERD OF DOMESTIC REINDEER AT GOLOVIN BAY.

By N. O. HULTBERG, *In Charge.*

GOLOVIN BAY, ALASKA, *August 12, 1896.*

SIR: I have the honor to report that the herd arrived at this place from Port Clarence on the 25th of January, 1896. At first the herd was kept 5 or 6 miles north of the station, where there was moss in abundance. As we had a number of steers, my thought fell on how to get them trained. I ordered the boys to work with them every day, but it proved to be too hard work for them, as they are all very lazy. I then ordered the herd to be moved farther off. So it was moved to about 30 miles northwest of the station. Each of the boys then had to go home once a week for his own provisions, and if he came home with an old deer, he had to go back again with an empty sled. In this way we broke 11 new deer before spring. Before the calving season began the herd was moved again to a good sheltered place. The first calf was born April 13. April 18 I found 13 calves born. May 1 78 were born, and on May 14 the last was born. So the calving season took just a month. The weather was very severe during two-thirds of that month. It also caused the death of several calves. The Lapp assured me that if we had not had so good a place for them we would have lost at least half of the fawns. You will find from the inclosed list the number of those that died.

In June some kind of disease broke out among the deer. It took several fawns and two old deer. At present the herd is in a prosperous condition. I have had a good deal of trouble with the native herds. As soon as they came here, Martin sold two of his deer to Mr. A. Dexter, trader at this place, and two to another man, all without my knowledge. I was informed of this by my former interpreter, Mr. F. Komassoff. I asked Martin, and he said: "Yes; I sell my deer. No your deer. I sell if I want to." I could not very well do anything to him, as I heard myself when at Port Clarence that he was told by the superintendent, Mr. Widstead, that down here he could sell his deer for a very high price. I told Martin that if he sold his deer without permission he would have to leave himself, and the best he could do

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was to tell the buyers they could not have any deer, and so he did. Martin is a hard boy to control.

Tatpan is a very contented boy and faithful in watching, though he sometimes is pretty lazy. Okithon has appeared to be the best boy. He is always contented. When he has work to do, he works till he gets through with it.

Moses is a very careless boy. He is not to be depended upon in anything; acts contrary to orders, and is never satisfied. He left the herd the 13th of April because he could not get white man's grub. He was sent back again, as he said himself, by Mr. E. Engelstand, trader at Unalaklik, after two weeks. I told him then that I did not want him. He went out to the herd, where he told the others that he was told by Mr. Engelstand to go back, and if I did not want him he should stay with the herd and take his grub from Mr. Dexter. Under such circumstances I thought it best to give him his grub as before, and let him stay until Mr. Prevost came down. Thus he stayed here until the 27th of July, when he was sent home by orders from you. To the Lapp and family I give the best recommendation, as far as herding is concerned. They have stayed by the herd steadily since they came here. They say, "The herd is our home and our joy." As we ourselves, so had they to live very scantily for some time, on account of being short of provisions. After they found out that we really were short they made no complaint.

The native herders have each had 1 pound of flour a day and 1 pound of tea a month. I have counted two lumps of sugar a day for each. They had all the native grub they could eat, and all the ammunition they wanted for hunting. We have shot five dogs. Three of them belonged to the station; we have not yet found the owners of the others.

On the 25th of February a deer ran away with a sled. We found the deer tangled up in some bushes, nearly snowed over, but alive.

Reindeer account.

Date.		DR.				CR.			
		Males.	Females.	Fawns.	Total.	Males.	Females.	Fawns.	Total.
1896.									
Jan. 25	Received from T. R. Station, P. C					32	92	6	130
25	Deer belong to—								
	Okithon		6	1	7				
	Martin		5	2	7				
	Tatpan		2	2	4				
	Moses		11	1	12				
25	Balance	32	68		100				
	Total	32	92	6	130	32	92	6	130
Feb. 1	Number of deer in herd					32	92	6	130
Aug. 11	Fawns born							94	94
11	Died and killed	3	3	12	18				
11	Balance	29	89	88	206				
	Total	32	92	100	224	32	92	100	224

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Reindeer account—Continued.

Date.		Dr.				Cr.			
		Males.	Females.	Fawns.	Total.	Males.	Females.	Fawns.	Total.
1896.									
Aug. 11	Number of deer in herd					29	89	88	206
11	Deer belong to—								
	Okritkon		5	5	10				
	Martin		5	7	12				
	Tatpan		3	4	7				
	Moses		11	10	21				
11	Balance	29	65	62	156				
	Total	29	89	88	206	29	89	88	206
11	Fawns born, now alive					39	43		82
11	Died from intestinal disease		3	7	10				
11	Died from cold			5	5				
11	Killed to feed the Lapps	2			2				
11	Killed by dogs	1			1				
	Total died and killed	3	3	12	18				

Very respectfully, yours,

N. O. HULTBERG.

Dr. SHELDON JACKSON,

United States General Agent of Education in Alaska.

TRANSFER OF REINDEER TO THE SWEDISH MISSION STATION AT GOLOVIN BAY AND EPISCOPAL MISSION AT FORT ADAMS.

GOLOVIN BAY, *February 5, 1896.*

SIR: In company with Mr. Howard, from the St. James Mission, I started for Port Clarence the 28th of December, 1895, to bring the reindeer which were to be brought down to Golovin Bay. We arrived at Port Clarence the 1st of January, 1896. Our way was over the mountains. The temperature was between -35° and -42° during the trip. At Port Clarence we were guests of Mr. and Mrs. Brevig, who were very delighted over our visit. After much delay, we at last got ready to start for the herd, which was about 30 to 40 miles off, the 13th of January.

We were very surprised to hear of the order given that only 50 head were to be delivered for each place, Golovin Bay and Fort Adams, half males and half females. I decided to not take any deer at all, because 25 cows will only pay the herders for the first year, besides a herd of 50, the Lapps said, would be impossible to take care of when there are wolves around. Mr. Howard insisted on my taking them if we got two-thirds cows, which the superintendent at last promised us. So we concluded to keep them all at Golovin Bay until next winter, as the herd then would be a little bigger.

Accompanied by one of the Lapps, our boys, and Mr. Kjellmann, who is an old but a wise man, we started for the herd. We were two

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days on the way there. The 16th, in the afternoon, we were ready to leave for Golovin Bay. The 25th of January we arrived at Golovin Bay, everything having gone first rate by the aid of the Lapps, Mikkel, and Aslak.

Sincerely, yours,

N. O. HULTBERG,
Missionary at Golovin Bay.

Dr. SHELDON JACKSON.

REINDEER HERD REPORT, GOLOVIN BAY, 1896.

GOLOVIN BAY, *July 10, 1896.*

SIR: As I have opportunity, I will send you a few lines. It has been a very late spring on account of the severe winter, which has kept on till so late. We have not been able to go on water before about the 1st of July. It was very stormy and cold during the calving season; it caused the death of several calves. In other respects the herd is getting on nicely. The Lapps say that this is the best place for reindeer they ever saw; that the Government would gain a good deal by bringing the whole herd down here.

Yours, truly,

N. O. HULTBERG,
Missionary.

Dr. SHELDON JACKSON.



GROUP OF SCHOOLGIRLS, PRESBYTERIAN MISSION, SITKA.
photographed by W. B. Byram.

not only would one deer haul more than their team of dogs, but that by hitching each behind the other a single man could handle a half dozen sleds or more.

As the night was cloudy and dark, we were forced to go into camp early, picketing our deer in the same manner as horses.

January 14.—This morning we had a very long hill to climb, and upon arriving at the summit, to my dismay I noticed that the other side was so steep that I wondered how it was possible to descend with our loads. I was not to remain long in doubt. One of the Lapps, after the deer had been given sufficient rest, unharnessed his animal, tied the lougee to the rear of the sled, which he pulled over the edge of the hill, and jumping on, started, the deer bracing himself with his four feet and pulling backward. As they flew down the hill they were obscured by a streak of whirling snow, marking the path of descent like the tail of a comet. Others followed, and as they met with no accident, I jumped on the sled and started, after having well assured myself there was no other place of descent less precipitous. I arrived safely at the bottom, but it is an experience I have no desire of repeating. About noon we arrived at the place where the herd was feeding. The Lapps had constructed two corrals of brush, into the larger of which the deer will be driven, our deer selected and marked, and then placed in the smaller one.

The Lapps live in tents similar to the ordinary Indian tepee, as they can more readily move with the deer from one pasture to another. They dress entirely in deerskins in winter, using the heavy winter fur for that purpose, which gives them the appearance of having very broad shoulders and permits them to sleep out in the coldest weather without any other protection.

Upon visiting a Lapp family I was invariably offered a cup of coffee accompanied with a lump of sugar, which it would be considered an act of discourtesy to refuse. The coffee I noticed had a saline taste, and afterwards discovered that the Lapps seasoned it with salt, which made it somewhat unpleasant to the taste. Mr. Hultberg told me that in one day he had drunk 13 cups of this beverage, having made that number of visits.

January 15.—This morning the deer, numbering about 500, were driven into the larger corral, where the work of separating began. It was not until evening that the work was accomplished, when our deer were driven some distance from the main herd and left in charge of a herder for the night.

January 16.—It was late this morning when we started on our journey. My driving deer, which was a fresh one from the herd, was inclined to be somewhat frolicsome. He was undoubtedly taking an unfair advantage of my inexperience, and in such a manner as to make me feel decidedly nervous. He would go from side to side, causing the sled to make a succession of small curves, or he would turn completely around, as if he was trying to make as small a circle as possible, with a view to upsetting the sled. Finally he turned around in such a manner as to get the trace between his fore legs, then stood still, and looked at me as if he enjoyed my discomfiture. I certainly would have been in a serious predicament had it not been for the timely assistance of one of the Lapps who had followed us some distance. He grabbed the deer by the horns and in no gentle manner turned him about, and after giving him a smart cut with the end of the lougee, jumped on the sled. The deer started at a lively pace and in such a manner as to indicate that he was mastered. In a few moments we caught up with the other deer, and as a preventive of future antics of the same nature, I tied him to the rear of another sled, when he trotted along in rather a dejected manner, as if conscious of the fact that he was in disgrace.

It was a pleasant surprise to find how easily a herd of deer can be driven. They bunch together like so many sheep when traveling, and one Lapp and his dog can handle a large herd as easily as a man can drive a team of horses hitched to a

wagon. At about 6 o'clock we arrived at a village with a name that I was unable to reproduce in chirography. Mr. Hultberg and I soon found ourselves snugly ensconced in an empty barabra. The herd was driven some distance from the village, where plenty of moss was found, and there left by themselves for the night, the Lapps assuring us that they needed no watching and would be found there in the morning.

January 19.—On the 17th and 18th we experienced some very cold weather, combined with the usual winds. To-day we crossed the summit of the range that divides Port Clarence from the Golovin Bay district. The weather was remarkable for being entirely devoid of wind. On the summit there was a perfect calm, a meteorological phenomenon rarely witnessed in this section. We are camped at a village (?) composed of one barabra and occupied by a very large family, who welcomed us with outstretched arms, undoubtedly anticipating a feast over the remnants of our supper; but if so, they were disappointed, as our stock of provisions, which was short at the start, owing to the scarcity at Port Clarence, is being reduced to an alarming extent, necessitating our living almost entirely upon native food.

The natives on the coast, as a rule, are very hospitable to travelers, who are always welcomed. Should they be aroused at midnight they do not seem annoyed nor inconvenienced, but will immediately set to work to build a fire, get fresh water, and in their humble way endeavor to make their guests as comfortable as possible. The women invariably take charge of the boots, cleaning them of ice and snow before hanging them up to dry, and in the morning will prepare them with dry straw, after carefully examining them to see if they need repairing. A little flour and a small handful of tea is considered by them ample compensation.

The women, I noticed, are more industrious than the men. Languid indolence seems foreign to their nature, and their patience under trying circumstances is a virtue our women of civilization might deem worthy of emulation.

* * * * *

January 24.—At noon we arrived at Golovin Bay, where we were soon doing justice to a bountiful repast spread before us by Mrs. Hultberg.

MR. L. M. STEVENSON'S TRIP INLAND FROM POINT BARROW IN THE WINTER OF 1895-96.

On the 26th of November, 1895, in company with some natives, I made a sled trip into the interior of Alaska, penetrating south as far as the latitude of Point Lay, traveling a distance of nearly 500 miles in the round trip.

The country is mostly level until the foothills of the Meade River Mountains are reached, when it is suddenly broken and rugged.

Through this region flows the Kooloogorooch, a broad stream, with long winding curves many miles in length, but a short distance by land from one to the other. The south bank is fringed with a growth of willows from 5 to 9 feet high, while on the north bank there is a growth of wild rye, wild rice, and other similar products, and the reindeer moss is seen everywhere.

The snow is never more than 9 inches deep, usually less, and a sled breaks through to the ground except in the drifts.

The entire country is well adapted to the herding of domestic reindeer, the moss in winter and grass in summer being in sufficient quantity for their support.

Coal veins of greater or less width crop out frequently, the largest seen by me being 20 feet or more in width and standing boldly out of the bluff.

Five stations might be located as follows: One at Otekeahoa, one at Pooleame, one at Cavearo, one at Colloovah, one at or near the largest coal vein.

The stations thus located will not be nearer to each other than from 30 to 50 miles.



MISS E. SAXMAN AND PUPILS, PUBLIC SCHOOL NO. 2, JUNEAU.
Photograph by Winter and Pond.

apprentice, replaced from his deer. Where one or more natives kill or injure a deer, procure all the evidence possible, that they may be punished. When deer stray from the herd and are returned by the natives, reward them.

There are seven female deer in the Cape Nome herd which have been purchased from Charley and the apprentices. When convenient, these should be brought to the herd at the station.

It appears that some of the apprentices have offered to sell their deer to traders. This will not be allowed. If an apprentice attempts it, he must not be allowed to remove the deer from the herd.

HERDERS.

As the time of the Lapps expires next summer, it is desirable that you arrange with some of them to remain two years longer.

If you decide that next season will be a favorable time for you to go to Lapland to secure a permanent colony of Lapps for Alaska, you will make your arrangements accordingly. You will also arrange to take with you one or two of the most influential of the Lapps as assistants.

It is not expedient at present to add to the number of apprentices taken from the people dwelling in the vicinity of Port Clarence. The family which I bring you from Point Barrow, and perhaps one or two that may be sent up from the Kuskokwim River, are all the new ones that will be added to the force this year. Give the new ones a fair and just trial, and if any one proves a failure you can send him home next season.

As it is important that the apprentices be habituated to a nomadic life, they will not this year spend four months at the station attending school. I hope ultimately to arrange for a school in the immediate neighborhood of the herd and to require the attendance of the herders and apprentices.

The instructions of August 1, 1894, on page 63 of Reindeer Report of 1894, allowing apprentices 2 deer the first year, 5 the second, and 10 the third, are hereby countermanded.

The old apprentices will be allowed the deer that have already been issued to them, together with the increase of the same, but no more are to be issued until further orders. Care should be taken in properly marking the deer and fawns belonging to each apprentice. The apprentices who went with the herd to Golovin Bay claimed their full number of does, and every doe had a fawn each year, and none of them died during the years that the apprentices had been serving. This looks as if proper regard had not been had with respect to marking the animals.

The feeding, clothing, and instruction of a man and his family are ample payment for his services while learning his trade. Experience has shown that the apprentice at the station makes a better living

than his associates at home. When he completes his apprenticeship, it may be proper to give him some deer for a start, but if this done, it will be as a gift and not wages.

The term of apprenticeship will be five years. The herders that have secured deer are not allowed to remove them from the main herd, except they go in company with others to make up a new herd of not less than 100 head.

DOGS.

Frequently remind the Lapps of the necessity of keeping their breed of dogs pure. Do not let them cross with the Eskimo dog. Also have the Lapps train two dogs apiece, so that there will be a supply of trained dogs to send out with new herds.

MORALS.

I would call your special attention to rules on morals, issued August 1, 1894, page 64, Reindeer Report, 1894.

From the log book and other sources of information there is reason to believe that the superintendent has not insisted upon the observance of these rules as strongly as he should. Not even hunting, fishing, or breaking deer is to be allowed on Sunday.

TRADING.

The Government is not running a store at the reindeer station. The supply of trade goods furnished is to procure reindeer skins, seal skins and oil, boots, fuel, pay for labor, etc.; also to supply the Lapps with such things as they are expected to buy; and not for the purposes of general trade. The employees of the Government at the station and camps are hereby forbidden to trade in whalebone at all, or in furs, etc., for shipment out of the country, or trading to other parties for shipment out of the country or away from the stations or for trading to other parties. The breaking of this rule will be considered sufficient cause for dismissal from service. Reindeer and seal skins, furs, boots, and supplies needed at any of the other schools or mission stations can be purchased by your station and sold to the others, after your station has secured sufficient for its own use.

As reindeer skins are both more expensive and more difficult to procure than seal skins, you will encourage, especially in summer, the use of seal-skin garments by the apprentices.

As the natives have learned to make liquor from molasses, none must be given or traded from the station. And the supply of molasses issued as rations to the apprentices must be looked after.

By an act of Congress every Government school is required to teach that liquors and tobacco are injurious to the human system. But such teaching will have little influence if the Government furnishes a regular supply of tobacco. Therefore none is to be traded or given

at the station, except that which by agreement is required for the Lapps. Hereafter tobacco is to be ordered in quantity only sufficient for the supply of the Lapps.

As the herders are removed inland, no more parties need be sent out in the spring for seal, but you will purchase the necessary seal skins and oil from the natives.

You are also authorized to purchase wood for the schoolhouse from the natives.

Christmas and New Year presents can not be made at the expense of the Government.

RATIONS.

By the present ration list I notice that fish and seal oil are issued without limit, and full rations besides. The apprentices should be kept as far as possible on their native diet, and not create wants which it will be difficult for them to supply when they go out by themselves. Hence they should be encouraged to eat seal oil and fish, and less of the food brought up from San Francisco at heavy expense. The Government wishes them to be well fed, but in doing so does not wish to create expensive or wasteful habits, nor to issue food to be given to their relatives. They are now receiving a larger allowance than the Government furnishes the sailors on the revenue vessels. When reindeer meat is issued to the Lapps, you will decrease the supply of salt meat for that month's ration. When reindeer are killed for food, see to it that the old and crippled are taken.

When Dr. Kittilsen is called off to a distance to attend to the sick, you can furnish him with food for the trip from the station, the same to be paid for by the party calling for his services.

You can also take supplies from the station for yourself upon your trip to the Yukon and Kuskokwim rivers. When supplies are so issued, make a regular account of them.

The rations which the assistants now receive will feed them upon the trip.

Very truly, yours,

SHELDON JACKSON,
General Agent.

WILLIAM A. KJELLMANN,
Superintendent of Teller Reindeer Station.

DR. LYALL'S REPORT ON EPIDEMIC AMONG REINDEER.

UNALASKA, ALASKA, *September 17, 1896.*

SIR: Do you desire a report of the hurried and consequently imperfect investigation into the disease prevailing among the 400 or 500 reindeer at Teller Station, as made by Dr. Kittilsen and myself? I feel I must plead my incompetency to do such an important subject the justice it demands, for my observations were not made with any idea of my being called upon to express them in black and white. Such a disease requires the closest observation into its characteristics during the whole course that it runs, so as to describe it in that lucid manner so essential for a guide to its proper treatment by those who may desire to investigate it further. As you may have observed, among the dozen or more examined by us some showed the inception of the disease in the slightly swollen ring around the hard portion of the hoof, while others of the severest type had the hoof immensely swollen, broken down, and discharging a strong-smelling sanguino-purulent matter, welling up from sinews running all through the affected area, whether located around the hoof, the knee, the thigh, back, or lower jaw. In the inception of the disease the swollen part is to the touch hard and resisting, but as the disease advances, fluctuation shows the breaking down of the tissues, when, if not lanced, it in time breaks through the skin, gradually forming a sluggish-looking ulcer, bathed with pus and having hard, sharp-cut edges. Recommending as I did the early and free incision into the pus cavity, washing out the pus, and curetting the diseased tissue, so as to remove as much as possible the possibility of its being taken up by the absorbents and carried throughout the system, I was not only carrying out a sound surgical principle and procedure but also emphasized my belief in the primary seat of the disease being in the hoof and knee together, but if only one of these, always the hoof, and thereby cutting off the sources of infection from the lungs and liver, the only two internal organs we were so far able to find infected. Sections of these you have in your possession, and after examination through the microscope additional pathological data can be adduced. I only regret our neglect to include sections of the diseased muscular and connective tissue, which on cutting gave one the impression of resistance to the knife much like that of cartilage, although it was more friable, and

seemed to be somewhat granular. In some of the worst cases the hoofs were almost dropping off, and necrosis of the bones had commenced. That the succeeding infection of the lungs and liver was the result of septicæmia I have little doubt, but the microscope will reveal many additional facts.

In Scotland, where the sheep are often wintered by putting them on sections of the turnip field, which often is wet and muddy, I have seen what went under the name of foot rot there very prevalent, and again since being in Alaska I have observed the same disease in a few sheep brought up from the States and turned loose on the islands where the ground was continually soaked with water. This disease in the sheep presented symptoms similar to those seen among the reindeer. They became sluggish and drooping if the treatment of the disease was neglected too long, so as to infect the rest of the system, losing appetite, and finally dying. The treatment followed, viz., "a mixture of tar, crude carbolic acid, and boracic acid," was the same as I recommended in the case of the deer, the parts, of course, being first thoroughly cleaned out and the animals turned onto dry pasture. Hoping this may aid you somewhat in coping with this disease, I am, very respectfully, yours,

ROBERT LYALL, M. D.

Dr. SHELDON JACKSON,

United States General Agent of Education in Alaska.

THE COLONIZATION OF LAPPS.

MADISON, WIS., *February 12, 1896.*

SIR: In reply to your inquiries concerning the formation of permanent colonies of Laplanders in Alaska, etc., the following may be of service:

I believe some of the Lapps at present in Alaska can be persuaded to renew their contracts for a couple of years if they are sufficiently and properly urged.

With respect to the possibilities of getting a colony of Lapps to move to Alaska and remain there, I think this can indeed be accomplished, but many difficulties are connected with such an enterprise, especially the transportation of their herds. I do not think, however, the attempt can be carried out before the Lapps now in Alaska, or some of them, have returned to Lapland with a satisfactory result of their journey, and also with a satisfactory account of Alaska and its future as a reindeer country. The Laplanders are cautious people and will not easily be persuaded to a new and unattempted enterprise unless they are thoroughly convinced that the result will be in their favor.

The question of the immigration of the Laplanders has for many years been of interest to me, as I have seen that it is only a matter of time when the Lapps will be compelled to migrate on account of the increase in population and decrease in pasturages for reindeer. This fact has not escaped their notice, and the most prominent among them have made several investigations concerning the most appropriate place to migrate to. If simple calculation is to be taken into account, America must become the future home of the Laplanders. This conclusion I reach in the following manner: The Lapps have tried to move to the mountains of southern Norway and Sweden, but only a limited number can there find pasture for their herds, as all the valleys are occupied by peasants, who use the land for agricultural purposes and are greatly opposed to the coming of the Lapps. The farmers have already made many complaints concerning the destruction of their fields and meadows by the reindeer. To Russia the Laplanders will not go. Southern Europe is not favorable for the production of reindeer. Iceland and Greenland could probably receive some, but the possibility to defray more than the necessary expenses is very slight, as there is hardly a market for their produce. The American continent alone remains. The United States has Alaska, and Canada has its whole northern extent from the Atlantic to the Pacific to offer.

When the present conditions of these two areas of land are compared, the conclusion is involuntarily reached that the northern parts of Canada must, at present, be preferred as the future home for the Lapps. The reason of this is that from the northern parts of Canada a market for the produce can be more easily reached than from Alaska, where no neighboring market can at present be reached, and there is no home market either.

The Lapps are a civilized people, and as such will try to find a new home where they may earn more than a bare livelihood; besides, they are quite avaricious. This desire for wealth would attract them to Canada, provided some of them could come to northern Canada and could see the vast area of favorable land for them where now thousands of wild reindeer are grazing.

Permit me here to state my private opinions concerning the production of reindeer and emigration of Laplanders. If I see no way to accomplish anything in Alaska in the near future, I have made the following plan for a Canadian colony of Laplanders:

I will, with the Canadian Government's permission, go and investigate the country and pastures in northern Canada, and if found satisfactory I will obtain the support and necessary backing either of the Government or private parties, then I will go to Lapland, form a colony of good, chosen participants, transport the colony with some reindeer to Canada, plant the colony on a selected place, capture as many wild reindeer as possible, take them into the herd and tame them, and in this manner in a few years produce many herds. As soon as the size of the herds permits, the sale of meat, etc., begins by driving a herd for slaughter to the nearest railroad connection. Here the animals are slaughtered and shipped to the large cities of Canada and the United States. According to low calculation, money invested in such enterprise would yield 500 per cent in eight years. I shall not here give a closer calculation, as it would be of no consequence to you, while the above private plan possibly might suggest to you a useful idea.

With regard to your plan of inducing the Laplanders to take a permanent abode in Alaska and what the Government should do in order to further such a colonization, I take the liberty to present the following proposition: Send the most intelligent of the Lapps at present in Alaska, with a sensible, able white man as their leader, to investigate the southern tracts of Alaska—that means the stretch between St. Michael and Cooks Inlet—with the aim in view of finding a place suitable for a Lapp colony with respect to situation, pasture, etc. On the named stretch of land the Laplanders would doubtless find a more agreeable climate and conditions, together with the prospect of earning money by sale of products as well as the opportunity to earn extra money by fishing, etc. After the Lapps have found a suitable place, let them return to Lapland, accompanied by a man who has full power



to act as and when he sees fit. After such returning Lapps have told their people what they may expect by migrating to Alaska, and after the matter has been sufficiently considered, it will be an easy matter for the agent to gather his colony. The above proposition can easily be carried out without incurring further expense, as the Lapps who are to return in 1897 can be used as an investigation committee.

There are now in Alaska some of the most popular people of Lapland, and the opinion expressed by them upon their return to Lapland will be the first, last, and only standard by which all Laplanders will build their future as far as Alaska is concerned. If the Lapps are kept at those northern stations in Alaska until the expiration of their contracts, and sent directly home, I am convinced of the fact that all prospects for the formation of Laplander colonies in Alaska will be in vain, except started anew by hired people.

I shall not here express the minor reasons which lead me to such a conviction, and they would, besides, be of no consequence to the matter in hand. I wish to say, however, that the stretches of land north of Norton Sound will not be settled by Laplanders before some colonies farther south have succeeded, developed, and send their descendants there.

With respect to the transportation of reindeer from Lapland, I think it possible that whole herds can be brought over, but it would be an expensive matter. The reindeer can be driven from Lapland to Trondhjem, then by rail to Christiania, then by steamer to New York or Quebec, then by rail again to Vancouver, so by steamer across to Cooks Inlet, from which place they can be driven anywhere. The trip from Trondhjem, Norway, to Cooks Inlet will take from twenty-five to thirty days, which the deer will endure all right. Another way is to take them by steamer direct from near North Cape, Norway, to New York or other place on the east coast, and in so doing the whole trip from Lapland to Alaska would require only about twenty days. In my opinion, this is the only route over which the animals can be transported.

If sufficient reindeer could be bought in Siberia, I think it would be a better plan to let the participants of the colony sell their herds in Lapland, take the money along, and buy deer in Alaska, but in such case the Government must agree to sell a certain number of deer at a stated rate to the colonists on or after their arrival in Alaska. The Government could, while the transaction, formation, and transportation of the colony took place, secure the necessary reindeer in Siberia and have the deer brought to Pastolik or St. Michael, whence they could be driven to their destination.

As the number of miners, traders, and other civilized people coming to Alaska is constantly increasing every year, the means of transportation will necessarily have to be increased, and the Lapps will thereby have an additional means of livelihood.

It will be necessary, doubtless, in the near future that the Government establish postal communication with and in Arctic Alaska. In that region the mail must be carried overland the greater part of the year, and the reindeer is the most, if not the only, suitable animal for mail transport. If the selection of a place for a colony and the transportation of the mail were considered with respect to each other, the colonists might be employed as mail carriers within a certain district.

All possible measures must be taken to secure for the colonists as much extra earnings as possible, in order that they may not be compelled to depend on their herds for the necessities for the first years.

It is my opinion that you should not let the Lapps at present in the country depart before they are favorably inclined to colonization. At present such a favorable inclination does not exist. It can, however, be secured by showing the best of Alaska to them. The principal cause of the Laplanders' dissatisfaction with the present régime I have already touched upon in my report.

It is not easy beforehand to state how many Laplanders could be obtained or induced to settle in Alaska; but quite a number could be secured if there was something definite to offer them in the future. The first colony should consist of about fifteen families, together with some youths; in all, about fifty persons. A school must be established, and other socially binding institutions. The colony must be formed with the greatest prudence and foresight, that there may be no conflicting powers within the colony.

A skillful choice of participants will, in a great measure, determine the success of the colony. If the first colony proves a success for the participants, there will soon be a general immigration.

The price of reindeer in Norway and Sweden varies as much as the price of cattle in this country; the average price of a live deer is about 15 kroner (\$4.50). If a larger quantity were to be purchased, the price might be lowered to 10 kroner, or about \$3 per head.

Twenty years ago to-day the first immigrants from Iceland arrived at Winnipeg. There are now 10,000 of these people in Manitoba.

A great deal more might be said, but I think the above will give you an insight into my view of the matter, and I would be glad if any of my ideas would prove acceptable.

In the northern part of Norway there is a hardy, practical, energetic branch of the Lapps, or, more correctly speaking, an intermingling of Norwegians and Lapps. These people I consider best suited to become the pioneers of Arctic Alaska.

If desirable, I would gladly express myself more in detail as to the proper way or means of making the Lapps favorable to immigration.

Yours, respectfully,

WILLIAM A. KJELLMANN.

Dr. SHELDON JACKSON,

United States General Agent of Education in Alaska.



CIRCULAR LETTER SENT TO THE MISSIONARY SOCIETIES ENGAGED IN WORK IN NORTHERN ALASKA.

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION,
Washington, D. C., May 11, 1896.

SIR: In arranging plans for the distribution of domesticated reindeer in Alaska, I am led to look to the several missionary societies for cooperation and assistance. The missionaries being the most intelligent and disinterested friends of the natives, I look upon them as the best agents in reaching the native population. From their position and work, having learned the character and needs of the people, they are able to most wisely plan and carry out methods of transferring the ownership of the deer from the Government in such a manner as will best facilitate the reindeer industry.

As a wide and general distribution of reindeer will both save the natives from extinction and place them upon a plane of independence and self-support, making them useful to the white immigrants who are flocking to Alaska, the missionaries have a direct and personal interest with the Government in this work. To secure this cooperation of the missionaries, I propose to loan to the mission stations small herds of reindeer as an adjunct to their school work. It is as important to teach the natives just emerging from barbarism how to earn an independent support—how to connect themselves with our industrial civilization—as it is to give them book instruction; the two go hand in hand.

The industrial pursuit which nature seems to have mapped out for the native population of arctic and subarctic Alaska is the breeding and raising of reindeer and engaging in the transportation of passengers and freight. In introducing this industrial training in connection with your schools, it is very important that the young men under training for herdsmen should have instruction in the latest and most improved methods of handling these valuable animals. The two sections from which we can draw instructors are Siberia, which is nearest to the region proposed to be occupied, and Lapland, which is quite distant. The Siberians, however, are a barbarous and superstitious people, milking the deer by antiquated methods and handling them cruelly. They know nothing of the use of the herd

dog, have crude harness, and are brutal in their general treatment of the deer. The Lapps, on the other hand, are considered to be the most skillful handlers of reindeer in the world. Centuries of experience have given them improved methods of handling and treatment. They are, moreover, a civilized and Christian people.

Therefore, when a herd is loaned to a mission station the Government will require—

First. That an experienced Lapp herder shall be sent with the herd, who shall be in charge of the apprentices and their herds. His salary will be paid by the Government.

Second. It is the desire of the Government, in order to secure the most efficient and successful herders among the natives, that improved methods of treatment, improved harness, sleds, etc., shall be used, and that apprentices shall learn how to manufacture them after the best models.

Third. That special prominence shall be given to training in driving the teams, in order that a sufficient number of reindeer shall be utilized for transportation purposes. With the influx of population the reindeer as a means of communication between settlements in that isolated region will be more important, if possible, than as a food supply. It is also indispensable that the natives should thus become prepared for teamsters to do the freighting of that vast region for the white men. It is expected to establish express and mail lines, connecting even the most distant stations with southeast Alaska and with the States.

Fourth. The superintendent of the Government herd shall at all times have the right to inspect the herd and method of treatment, and make suggestions with regard to the same to the missionary in charge, who on his part shall furnish full information to said agent of the Government.

Fifth. The Government reserves the right, after a term of not less than three years, to call upon the station for the same number of deer as composed the original herd, and the deer so returned to the Government shall be of animals 2 to 4 years old, and shall be of females equal in number to the females in the original herd, unless otherwise arranged with the Government agent, the missionary station to own a number equivalent to the increase of the herd.

Sixth. Experience has taught that under proper care the annual increase of a herd of reindeer may be safely estimated at 40 to 50 per cent; it has been as high as 65 per cent at times. Hence the missionary station can rely on possessing a herd of its own as large as the original by the third year. The Government will also by this arrangement be in position to supply other stations, thus multiplying indefinitely and steadily the number of stations and herds of deer. However, it is hoped that there will be no necessity for drawing away any from any of the stations, but that it will be possible rather to increase the herd at each station by new additions of reindeer.

Seventh. It is well known that the vast territory of central and northern Alaska, unfitted for agriculture or cattle raising, is abundantly supplied with a long, fibrous white moss (*Cladonia rangiferina*), the natural food of the reindeer, and capable of sustaining millions of them. Taking the statistics of Norway and Sweden as a guide, a conservative estimate of the capability of Arctic and subarctic Alaska for the support of reindeer would place the number at not less than 9,000,000, furnishing support to a population of 250,000.

Eighth. Take into consideration with the foregoing the fact that in this region, now almost inaccessible for lack of roads and transportation facilities, valuable gold deposits have been discovered, and white settlers in large numbers are being attracted by the hope of gain. Already great difficulty is experienced in providing this mining population with the necessities of life, and rapid and frequent communication with civilization is impossible. Dog teams are slow, and on long journeys must be burdened with the food necessary for their own maintenance. Trained reindeer make in a day two to three times the distance covered by a dog team, and at the end of the journey can be turned loose to gather their support from the moss always accessible to them. To the isolated settlements and growing centers of industry and civilization springing up in so vast and inhospitable a region some available means of transportation of supplies of breadstuffs, groceries, tools, and mining implements is an imperative demand. The reindeer, strong, fleet of foot, self-sustaining, and requiring no beaten road, furnishes the most promising means of supplying this want, and organized into trains for systematic work, intercommunication between points distant from each other and far removed from any base of supplies becomes at once as important in the civilization and development of Alaska as are the railroads to our more favored States.

Ninth. Consider further, Providence has adapted the reindeer to the peculiar conditions of arctic life, and furnishes in them the possibilities of large and increasing commercial industries. The flesh is considered a great delicacy whether used fresh or cured by smoking, or prepared by the processes of the canning companies. The skins, used without tanning, make the best of all clothing for the climate of arctic Alaska, and when tanned make valuable leather for the use of the military man, for the glove maker, the bookbinder, or upholsterer. The hair is in great demand by reason of its wonderful buoyancy in the construction of various life-saving appliances. The horns and hoofs make the best glue known to commerce. With Alaska stocked with this valuable animal, the hardy Eskimo and the enterprising American would develop in a few years industries in the lines indicated that would amount to millions of dollars annually, and all this in a region where such industries are only developed enough to suggest their great possibilities.

Tenth. With the increase of food supply and the development of

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profitable industries will naturally come increase of population from the Eskimo and Lapps and the adventurous and strong emigrants from our own and other lands. The migration from our States will bring wide business combinations and keep up a constant demand on the natives and Laplanders for supplies of food and transportation.

In view of these considerations, I respectfully request that each missionary society already interested in the work of the conversion of Alaska to Christian civilization instruct its missionaries in charge of stations where schools are supported wholly or in part by this Bureau to cooperate with me in the spirit of the above explanations, and especially to aid the reindeer industry by suggestions of their own and by cheerful compliance with the regulations issued from this Bureau.

Very respectfully,

W. T. HARRIS, *Commissioner.*

REPLY OF THE AMERICAN MISSIONARY ASSOCIATION.

NEW YORK, *May 16, 1896.*

SIR: Thank you for the instructions to our missionary, Mr. Lopp, who is about to leave for Alaska. We have forwarded them with a copy of your letter to Dr. Ryder (who is absent) and requested him to carry out your instructions fully, which we are sure he will do.

Yours, very truly,

A. F. BEARD,
*Corresponding Secretary of
American Missionary Association.*

Commissioner W. T. HARRIS,
Bureau of Education, Washington, D. C.

REPLY OF THE MORAVIAN MISSIONARY SOCIETY.

BETHLEHEM, PA., *May 20, 1896.*

SIR: Acknowledging the receipt of your favor of the 14th instant, covering your letter addressed to missionary associations in regard to the matter of the introduction of reindeer in Alaska, I beg to express to you the full approval of our mission board of the plan proposed in that paper, according to which missionaries in charge of stations where Government schools are conducted shall become agents for introducing reindeer and instructing the natives in the rearing, management, etc., of the same, as therein set forth.

Our board having very cordially approved of the plan and suggestions of your letter, has resolved to send copies of the same, indorsed

with its approval, not only to Rev. Mr. Kilbuck, but also to Rev. Mr. Schoechert, at Carmel, and Weber, at Ougavig. We trust that in due time our missionaries and teachers may become able assistants in this most excellent project of the introduction of reindeer into Alaska.

Very respectfully and sincerely,

ROBT. DE SCHWEINITZ,
Treasurer and Agent of Moravian Missions.

Hon. W. T. HARRIS, LL. D.,
Commissioner of Education, Washington, D. C.

REPLY OF THE BOARD OF HOME MISSIONS OF THE PRESBYTERIAN
CHURCH IN THE UNITED STATES.

NEW YORK, *July 30, 1896.*

SIR: Your communication of May 14, inclosing the proposition dated May 11, concerning a plan for the distributing of domesticated reindeer in Alaska, was considered by our board on the 28th instant. The board unanimously acceded to the proposition and instructed me to affix their approval to the duplicate copy thereof, on the express condition that no financial responsibility shall be incurred by the board, and that any possible loss of the reindeer by epizootic or other unforeseen and uncontrollable misfortune should involve the board in no obligation to replace the reindeer under the provisions of the fifth section of your proposition.

We approve most highly of the plan as eminently wise and far-reaching in its beneficent provisions for coming Alaska. We shall be glad to do all in our power for its furtherance.

Respectfully, yours,

D. J. McMILLAN,
Corresponding Secretary.

Hon. W. T. HARRIS,
Commissioner of Education, Washington, D. C.

CORRESPONDENCE RELATIVE TO REINDEER IN ALASKA.

DEPARTMENT OF STATE,
Washington, March 31, 1896.

SIR: I have the honor to inclose for the information of Rev. Sheldon Jackson, of the Bureau of Education, copy of a dispatch on the subject of reindeer, received from our minister at St. Petersburg.

I have the honor to be, sir, your obedient servant,
RICHARD OLNEY.

The SECRETARY OF THE INTERIOR.

LEGATION OF THE UNITED STATES,
St. Petersburg, March 16, 1896.

SIR: In reply to an inquiry made direct by Rev. Sheldon Jackson, Department of the Interior, Bureau of Education, Alaska division, concerning reindeer, I have the honor to communicate as follows:

There are said to be no official publications by the Russian Government upon the reindeer, and it has been extremely difficult to procure information of any kind.

The minister of public domains has informed me verbally that he is now having a document prepared upon the subject, and that he will supply me with it when issued. No reindeer are kept short of several hundred miles of this locality.

Regularly, when the winter is severe, a few Laplanders visit St. Petersburg in their reindeer sleds to barter, etc.; but the past two winters have been too mild. My hope of being able to learn something through an interpreter from this source has not been realized.

Recently, however, I have gathered some information from Capt. Alexander Ettrolin, formerly governor of the Amoor District, and familiar with the subject both in Siberia and north of Finland. He says the only species of value for domestic purposes is what is known as the "household" reindeer. This is doubtless the one with which Mr. Jackson is familiar, and which he has already introduced to some extent in Alaska. They are some $4\frac{1}{2}$ to 5 feet high, full, round bodies, small legs, heavily coated with fur or hair of moderate length, can stand almost any degree of cold, have the domestic instinct to a remarkable degree, and are the only kind used for riding, driving,

and herding. Their food is almost exclusively moss, which in summer they get in suitable districts without trouble, and in winter they dig it up out of the snow with their horns. These deer can not carry very heavy loads upon their backs. In summer they carry in this way women, children, and household effects, while the men usually walk. In winter all, of course, are more easily moved by sled. When any departure from this deer is made, as it must be where moss is not abundant, reliance for transportation must be placed upon dog teams or the stocky, heavily-haired pony.

This distinction seems to follow the two, or I may say three, descriptions of country to be found in the far North. The coast produces fish, the food of the dogs; certain lands produce hay, the dependence of the pony, and certain regions yield only moss, which suffices for the reindeer alone. It may be interesting to note how those who must depend upon the reindeer for food, clothing, shelter, and almost everything in life are forced to lead a nomadic life by the necessity of moving to new localities to keep their herds supplied with moss.

While, as I understand it, the chief question with Mr. Jackson is the food supply, and not transportation, for the natives of Alaska, yet I would suggest that he put himself in communication with Maj. J. G. Pangborn, of the Field Columbian Transportation Museum, of Chicago. Major Pangborn has recently crossed Siberia, where he spent considerable periods with the officials, and he will soon be in the United States. A letter directed to his Chicago address would reach him. Also, as giving considerable general information about reindeer, I suggest reference to *Tent Life in Siberia*, by Mr. George Kennan, Putnam & Sons, publishers, New York. I will forward any further information I may be able to procure, and will, of course, gladly assist Mr. Jackson in every way within my sphere in carrying out any duties the Government may impose.

I have the honor to be, etc., your obedient servant,

CLIFTON R. BRECKINRIDGE.

Hon. RICHARD OLNEY,

Secretary of State, Washington, D. C.

APPLICATION TO THE RUSSIAN GOVERNMENT FOR PERMISSION TO ESTABLISH A TEMPORARY STATION IN SIBERIA FOR THE PURCHASE OF REINDEER.

DEPARTMENT OF THE INTERIOR, BUREAU OF EDUCATION,

Washington, D. C., November 7, 1896.

SIR: I have the honor to state that it will be necessary to obtain permission from His Imperial Majesty the Czar of Russia's Government to place an agent of this Bureau, accompanied by several herdsmen, at some point on the north Siberian coast for the purpose of expedit-

ing the purchase of reindeer. At the request of the Department of the Interior in 1892, permission to purchase reindeer on that coast was obtained through his excellency the Russian minister, resident at this capital. But experience has shown that unless the reindeer are purchased beforehand and collected near ports on the coast the United States steamer is delayed too long in the process of effecting these preliminaries, and the consequence is that the short season in which the transportation of reindeer is possible in these northern seas passes away with slender results. We have averaged a purchase of considerably less than 150 reindeer per annum during the past four years. It will be easy to double the number annually, provided the tedious process of purchasing and collecting the deer can be performed by some party in advance.

I therefore respectfully suggest, that application be made for this permit through the honorable the Secretary of State in the usual form.

Very respectfully, your obedient servant,

W. T. HARRIS, *Commissioner*.

The SECRETARY OF THE INTERIOR.

REINDEER NEEDED FOR FOOD ON THE LOWER YUKON RIVER.

NEW YORK CITY, *February 23, 1896.*

SIR: In reply to your request I have the honor to submit to your consideration the following statement respecting the question proposed in your favor of February 14:

Owing to the immense area of Alaska, you will readily observe that remarks which apply to one portion may be entirely inapplicable in another. Therefore, as there are a number of heroic and devoted men throughout the Territory who are most generously sacrificing themselves for the welfare of the natives, it may happen that some of these may find the circumstances in their respective districts not such as I describe them. In order to prevent any erroneous impression, I wish to state as clearly and explicitly as I can that my remarks refer only to that portion of Alaska in which I have been stationed, namely, the interfluvial tract extending from the Kuskokwim to the Yukon (rivers), the delta district of the Yukon, the neighborhood of St. Michaels, Norton Sound, and finally the Lower Yukon River district, as far up as Kozyrevski. While I have traversed Alaska quite extensively and am familiar with the greater portion, yet I wish to speak now only of those areas just designated above.

The question regarding the alarming decrease in the food supply among the Innuits of this portion of northern Alaska is one of vital importance to this remote and helpless race.

As it is a subject of local interest only, it can hardly meet with the attention it deserves on the part of those who are unacquainted with

the harsh conditions of arctic life, and who are not familiar with the details of the domestic economy of the Innuít. Certain preliminary points should be made very plain, in order to assist those who may feel interested to obtain a clear understanding of the subject.

Throughout all the portion of northern Alaska which borders on Bering Sea and the Arctic Ocean the soil yields no food products. It is true that there are one or two varieties of berries found on the tundras, but the quantity obtained is too insignificant to be considered here. There are also two varieties of edible roots; the better of these are about like marbles in size, and taste somewhat like a potato. These are stored up by the field mice, and whenever an Innuít comes across one of the tiny mounds filled with these roots, he robs the mice. Lastly, in the summer there is a species of wild rhubarb, the tender stalks of which are eaten raw. This completes the list, and it is needless to state that it is out of the question to consider these as of any importance in regard to the subject.

Hence it may be asserted that the Innuít derive no support from the soil, and that their sole resource is the sea. Accordingly, the Innuít may be classed among the most expert of fishers, and their villages are all situated upon the water's edge, either along the coast or on the banks of large rivers. It may be positively stated that there is no such a thing as an inland Eskimo village, a village situated away from water. This fact will show, moreover, what an immense uninhabited waste the interior of all this portion of our northern empire presents.

As the sea is the source from whence these interesting people derive their food, clothing, and all necessities of life, let us enumerate the chief marine products and note how disastrous to the poor natives have proved the encroachments of the white men.

First, the whaling industry. The whalers visiting this region pursue the whales far into the Arctic. Generally they allow the carcass to go to waste after securing the baleen. To the Innuít the whole of these great animals is of value; the skin being used for boot soles, the blubber for food, oil, light, and warmth. The whales, hunted as actively as they are now, will soon be entirely driven away, and this food product may be considered cut off.

Second, the walrus. This was formerly the great staple food of the Innuít. Immense herds of these huge animals frequented all the coast. A walrus would weigh about 2,000 pounds, and every part of it served some useful purpose. The skin was used to cover the frame of the large open boat known as an *angiak* or *oomiak*; the flesh served for food; the blubber afforded oil, which was stored up in the stomach and bladder; from the intestines they made the waterproof coats and the curtains used over the ventilators of their houses; and even the bones were of use. Unfortunately for the Innuít, walrus ivory possessed a certain commercial value; hence they have been so

ruthlessly slaughtered by the whalers that they are well-nigh exterminated. The last walrus that I know of was killed near our place at Cape Vancouver in 1893.

An irreparable injury has thus been done to the poor Inuit in depriving them of so useful an animal. Truly our Government has hitherto shown but little appreciation of Alaska in thus allowing it to become in reality a happy hunting ground for selfish corporations to roam through unrestricted.

Third. The salmon canneries. This industry, which dates from 1883, has grown to an extent which is almost incredible. A reference to the report of the governor of the Territory for 1894, page 10, will show the exact figures. The Columbia River was once supposed to be an inexhaustible source of salmon; yet, notwithstanding all restrictions as to the times and manner of fishing, the salmon there have been so greatly reduced that new locations for this industry have been sought for in Alaska. What is true of the Columbia River is true also of the salmon rivers of Alaska, and it is simply a question of time when this last main food supply will be exhausted.

This subject would seem naturally to come under the supervision of the Fish Commission. As this branch of the Government is so highly appreciated by every intelligent, public-spirited citizen, it would be a worthy act for them to save our Alaskan salmon rivers by taking prompt, energetic measures before it is too late. Our duty toward the native inhabitants requires those in authority to shield these poor, helpless people from the destruction of their last main food supply.

The Inuit are intelligent, industrious, and good-natured. Contrary to the common idea, they are tall and athletic. They possess many admirable traits; they treat their women well, are devoted to their children, and show great respect to the aged. During my sojourn among them I can say to their credit that I have never witnessed any fighting or altercation among them, and, furthermore, I have never observed the slightest breach of public decorum.

The Inuit of Alaska deserve the warmest sympathy of every charitable person; they merit our gratitude on account of the assistance and kindness they show toward those in distress. Far away in that dreary frozen northland, over and over again, destitute sailors have been most kindly cared for by these poor people, and the world has never known of it. As those who have been succored by them were usually persons in the humble stations of life, these seldom made their benefactors known. Humane societies and newspapers know little of the heroic rescues and noble deeds accomplished by these simple-hearted, generous people.

Three winters ago three young sailors were found in great misery below Point Hope; they were kindly cared for and helped on their way to our mission. The journey was long, and when they finally arrived

at a point some ten days' travel from the mission their feet got frozen and they could no longer stand upright. A runner brought the news down and one of our fathers went for them with dog sleds. When the poor fellows arrived it was necessary to amputate several of their toes, and an ordinary penknife was the only available instrument for this piece of amateur surgery.

During my stay in Alaska I have noticed that each year there is more and more privation. Last year, toward the end of the winter, all through the region mentioned at the opening of this letter, our people were reduced to a state bordering upon actual starvation. They were forced to eat their boots, and many had to strip the seal-skin covering from their canoes and use it for food. We shared our own small stores of provisions, but we could help only a few of the most destitute.

Of course the death rate was greatly increased, particularly among the infants and the most aged. It would take too long to enumerate all the cases, or to give the names of all the villages in which this sad state of things existed, and it was not until the arrival of the salmon that relief was obtained. We who dwell there and know the condition of the people were despondent over the gloomy prospect of an annual repetition of famine. It is heartrending to witness misery borne uncomplainingly by an innocent and injured race.

It is in consequence of this increasing scarcity of food among the Innuits that the scheme of introducing reindeer into Alaska is hailed with delight by all who have the interest of the natives at heart. I foresee only two obstacles to the success of this plan, and these can be overcome without any very great expenditure.

The first and most important obstacle is presented by the dogs. At present they are the masters of the situation, and I feel sure that these brutes will have to be killed off before they have a chance to kill the deer. Some may say that this is a drastic measure, and that the dogs will gradually become indifferent to the deer. I do not think so, however, and my opinion is based upon our own experience with cattle at Holy Cross, on the Yukon. We have there a bull and cow, and these have to be continually protected against the dogs. The pack has attacked the bull incessantly, and always succeed in throwing him down before anyone can get to his rescue. We thought that after some months they would become accustomed to the sight of the cattle, but we find that it is not the case. The dogs are as eager for an attack now as they were when the cattle arrived. I judge, therefore, that it is as hopeless to expect that they will become accustomed to the deer as that the deer will endure the presence of the dogs.

The second difficulty to be overcome is in training the Innuits to adopt the life of herders. As they are extremely docile and intelligent, I think that when once properly directed they will take readily enough to this new mode of life. The principal obstacle here is the

antagonism which can be aroused against the plan by the influence of the Tungraliks or sorcerers. If this gentry should see it advantageous to themselves to oppose the plan, they can effectually balk it, for the people allow themselves to be ruled and guided completely by these impostors.

It would be a great advantage if the very first shaman who shows any opposition were taken on board the revenue cutter and carried to some distant settlement. The news would spread around like wild-fire, and the rest of the fraternity would take the hint and not venture upon any opposition. Unless that is done, the chances are that some of these sorcerers, in their ignorance and stupidity, may be able to exercise the most powerful influence in thwarting this magnificent plan for the relief of the Inuit race. It will require the presence of a few trustworthy officers to be in charge of each district into which herds of deer are introduced. These men should be invested with authority to arrest any shaman who may give trouble, and to enforce the most rigid exclusion of dogs from the district under his supervision.

With these precautions, the introduction of reindeer into Alaska opens up the most cheering prospect of amelioration, and reflects the greatest honor upon all of those noble-hearted men who have labored so earnestly for its success.

Asking your indulgence for trespassing so long upon your time, I remain, with much esteem, very sincerely, your obedient servant in Christ,

FRANCIS BARNUM, S. J.

Hon. W. T. HARRIS,

Commissioner of Education, Washington, D. C.

ADDITIONAL FOOD SUPPLY NEEDED IN ARCTIC ALASKA.

SMYRNA, DEL., *March 7, 1896.*

SIR: You must pardon me for not replying to your letter sooner. I have been away most of the time since I was in Washington.

I have never visited central and western Alaska, but from what I have learned from miners and others from that section, I have no doubt but what the introduction of the domesticated deer will prove of great advantage to those who are living in that section, especially during the winter months. Dogs are very expensive there. I am told that far up the Yukon River they would sell for as high as \$75 each, and were scarce at that, and that it was not easy to procure food for them, one man telling me that his company had paid \$500 for dog food the previous winter.

The reindeer are capable of hauling a much heavier load more swiftly than the dogs, and have the great advantage that they can subsist on the moss of the country that they are in, while the dogs have to be fed.

In regard to the number of people who have starved to death recently, I only know of nine; seven out of three families to the north of Cape Lisburn, and two last winter on the Noatoh River section. I had sent relief to the first mentioned, but from the severity of the winter my messenger could not reach them.

Starvation has undoubtedly claimed many victims in the past, and it is a condition that is liable to visit any of our northern tribes at any time.

In speaking of starvation, I refer only to those cases which have proved fatal. I have known of many where if relief had not arrived death would have occurred.

The wild game which the natives depend upon for their food supply is certainly growing less plentiful. The deer which the Eskimos depend on for their clothing are very greatly diminished in number in the neighborhood of Point Hope. So it is a common occurrence to see children improperly clothed attending our mission schools even in the severest of weather.

Whales seem to be growing more shy each year, and it is proving much more difficult for the natives to capture them; the wild ducks also are not as plentiful as they were my first two summers in the north.

There is in print a leaflet in which I have spoken in a general way concerning the reindeer. I will send it to you later on.

Very respectfully, yours,

JOHN B. DRIGGS.

Hon. W. T. HARRIS.

NEED OF DOMESTIC REINDEER IN THE VALLEYS OF THE KUSKOKWIM AND NUSHAGAK RIVERS.

BETHEL, KUSKOKWIM RIVER, ALASKA, *August 20, 1896.*

SIR: We write asking for reindeer for our mission stations on this river, and for the native villages wherein our stations are located, with a view to the supplying eventually the whole river basin with the deer.

The reindeer would be of inestimable value to the missionaries for driving purposes and to the natives for food, dress, and for traveling.

The natives now often suffer for food, and more suffering is apparent in the near future, owing to the destruction of the mammalia of this region for fur-trading purposes.

The dogs, which we hope to destroy by the introduction of the reindeer to our people, require that food be provided for them (the dogs) during the winter months, just at a time when the native can least afford to share his store of food. The dog is less certain as a means of transportation and requires that food be taken along for each trip,

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while more rapid traveling and no incumbrance by dog food would be required were we in possession of the deer.

We have splendid pasture for the deer, and the natives, after their eleven years' of teaching and preaching, are able to appreciate the value of such an opportunity to provide for themselves both food and clothing in a superior and more reliable manner than that which they now have by hunting and fishing.

We accordingly request you to remember us at the earliest possible date in the reindeer distribution.

The success or failure of our work depends on this opportunity to give the native a more sure and reliable method of obtaining a living.

We feel the need of a more civilized mode of life for these Eskimo, and these deer seem our only hope.

Most cordially,

JOS. H. ROMIG, M. D.
Rev. S. H. ROCK.

Dr. SHELDON JACKSON.

REINDEER NEEDED AT THE GOLD MINES FOR FREIGHTING PURPOSES.

NORTH AMERICAN TRANSPORTATION AND TRADING Co.,
Chicago, March 21, 1896.

SIR: Our mail from the Yukon reports everything prospering there, and new mines being discovered all the time. Dogs are selling at Circle City at from \$100 to \$200 each.

It would be a great help to that country if we had reindeer transportation. The dogs are expensive, and food has to be carried for them where the deer would live on the moss of the country, besides carrying more pounds than the dog can.

It is costing 15 to 25 cents a pound to get food from the Yukon back into the mines. The nearest mine to the Yukon is more than 30 miles distant.

There is a large number of miners going to the Yukon, as well as other parts of Alaska, this season.

Yours, very truly,

P. B. WEARE, *Vice-President.*

Dr. SHELDON JACKSON.

REINDEER NEEDED ON ST. LAWRENCE ISLAND.

ST. LAWRENCE ISLAND, ALASKA, *August 5, 1896.*

SIR: I do not want to intrude on your valuable time, but I do think I ought to enter a plea for these people here. We expected deer here year before last and again last year, and thought surely we would receive them this summer. I don't doubt the wisdom of locating a central herd at the present place, but I do think reindeer should have been placed here at the earliest opportunity.

The people of this island have to depend entirely on the seals for their winter food. There is nothing on the land. While the winds are bad they must suspend hunting. If the winds continue bad, as they did several years ago, this village will not lose *half* its people, but *all*, as they get no walrus till May, and then but few, and seals are much scarcer than they were then. The natives say strong and shifting winds and heavy snowfall caused the extinction of three villages here then, and not, as I have heard it asserted, the importation, or smuggling, rather, of whisky. About half survived here because of the more favorable location, allowing hunting from both sides of the point.

I sincerely hope you will be able to place a herd here next year, even if it is but a small one.

Very respectfully,
HON. W. T. HARRIS, LL. D.,
Washington, D. C.

V. C. GAMBELL.

FAMINE ON THE COAST OF NORTON SOUND.

UNALAKLIK, ALASKA, *September 3, 1896.*

SIR: It is not a new thing or a need of recent date I am going to lay before you. It is the most common thing among both the civilized and uncivilized nations, the heathen's most important question, "What shall we eat?" This question, however, is repeated to us every day and many times a day and seems to be more significant upon the approach of the long and cold winter. You know, Doctor, that Unalaklik is quite a large village, and the people here, as in most places elsewhere in this country, are depending on fish, seal, and meat of land animals. Among land animals the deer is the most important, but these are now nearly extinct in this part of the country, and belong to the time past. Even the seal is not so plentiful as in former years. After the deer commenced to be scarce, the people hunted the seal more than before; consequently the seal is getting less numerous, too. Fish is therefore the most reliable food for these people. Some years the run of the fish is very small, depending much upon the late remaining of the ice and the heavy winds. In a late season the natives know they are going to have a hard time. The present year, or rather the coming winter, will therefore be a very hard time for these poor natives.

Very few fish have been caught during the whole season which now is close to its end. It is no wonder, then, that the people round us anxiously ask, "What shall we eat next winter?" They are coming to us, thinking that we are able to read this riddle. To tell them to go and eat and warm themselves, not giving them anything, is not Christianity; but what shall we poor missionaries do?

A dark picture both for them and us to look at, indeed. I've seen and heard of natives since I came to this country who, being hard up for food, have cut up their skin boats and old boots and eaten them. But the time is at hand when not even this kind of food—if I shall call it so—can be obtained.

I don't claim to understand much, but I understand so much, that even the natives of Alaska are our neighbors, and that something both ought to be done and can be done for these people. A step is doubtless already taken to solve this great problem, by introduction of the reindeer into this country. But many of the natives will perish before this life-saving boat reaches them, if it proceeds so slowly.

Very respectfully, yours,
Dr. SHELDON JACKSON.

ALEX. E. KARLSEN.

FAMINE ON THE NORTH BERING SEACOAST.

GOLOVIN BAY, ALASKA, *August 27, 1896.*

SIR: As things look at present, there will undoubtedly be starvation among the natives this coming winter. As yet they have caught no fish at all on account of the stormy weather during the season. The people are very excited, waiting for the suffering which is now facing them, as they can depend no longer upon the seal, and the rabbits are gone. It looks dark, indeed. The natives say: "Aka-ka! next winter we plenty hungry; I guess die; no fish." It is hard to hear, but it will be worse to see.

Doctor, could not the Government do something to prevent some suffering this coming winter? Three hundred sacks of flour left in this place would possibly save 100 lives. If the flour could be secured at St. Michael and the captain of the steamer *Bear* would steam over with it, I would distribute it if necessary; if not, it would not be lost.

The people are looking eagerly toward the reindeer. The oldest of them are often telling me about the time when there was plenty of deer around here and they had "plenty caw-caw" (food). You should see their smiling faces when I explain to them that in a few years there will be more deer than ever before. At first they had an idea that the deer would only be for white people. But after they understood that it was not so, I may say they felt happy. In fact, the people are in distress, a condition which nothing but the reindeer can help them out of, and in the near future they will learn to esteem the leaders in this great work.

I am, truly, yours,
Dr. SHELDON JACKSON.

N. O. HULTBERG.

INTRODUCTION OF DOMESTIC REINDEER ON THE PRIBILOF ISLANDS.

TREASURY DEPARTMENT, *March 28, 1896.*

SIR: Mr. Jos. B. Crowley, special agent of this Department in charge of the seal islands, desires to procure 40 reindeer for those islands. He has informed the Department that Dr. Sheldon Jackson, connected with the Department of the Interior, will arrange for their transportation from the reindeer station, provided the revenue cutter, in its annual trip to the Arctic, can transport the animals.

I have respectfully to request that Dr. Jackson be advised that this Department will instruct the commanding officer of the revenue steamer *Bear*, on his return trip in the fall, to transport the reindeer from the station to the seal islands.

Respectfully, yours,

S. WIKE, *Acting Secretary.*

The SECRETARY OF THE INTERIOR.

TREASURY DEPARTMENT, OFFICE OF THE SECRETARY,
Washington, D. C., April 17, 1896.

SIR: Referring to Department's letter to you of the 4th instant, inclosing for an expression of your views a copy of a protest of the North American Commercial Company against the proposed introduction of domesticated reindeer upon the Pribilof Islands, and to your reply thereto, dated the 8th instant, you are instructed to proceed in carrying out the plans you have formulated, having as an object the introduction of the reindeer upon the islands. If, however, after the introduction of the animals, it should be found that their presence is a disturbing element to the seal life upon the rookeries, you are instructed to take immediate steps for the removal of the deer from the islands.

It has been represented that on the Commander Islands native watchmen are kept constantly on the seal rookeries to guard against approach of reindeer, which are present there in large numbers. It is suggested that a similar system of continuous watching of the rookeries on the seal islands by the natives would be of advantage.

Respectfully, yours,

C. S. HAMLIN, *Assistant Secretary.*

Mr. J. B. CROWLEY,

Special agent in charge of Seal Islands, Robinson, Ill.

OFFICE OF SPECIAL AGENT TREASURY DEPARTMENT,
St. Paul Island, Alaska, June 24, 1896.

SIR: After our personal conference in Washington, I procured an order from the Secretary of the Treasury Department for the landing of reindeer on the seal islands.

I also received a personal promise from Capt. C. F. Shoemaker, Chief of the Division of Revenue-Cutter Service, that he would issue an order directing that the *Bear* transmit the animals from the reindeer station to the islands.

I should like to know whether you have been informed as to this matter by the Department?

Respectfully, yours,

JOS. B. CROWLEY,
Special Treasury Agent.

Dr. SHELDON JACKSON.

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION, ALASKA DIVISION,
Unalaska, June 29, 1896.

SIR: I have been requested by the United States Treasury Department to send a few reindeer to the seal islands. I have learned unofficially that your company fear that they will frighten the seal, and therefore do not wish the reindeer.

I shall be pleased to learn your wishes in the matter.

Very truly, yours,

SHELDON JACKSON,
United States General Agent of Education in Alaska.

Mr. J. STANLEY BROWN,
General Agent North American Commercial Company.

NORTH AMERICAN COMMERCIAL COMPANY,
Dutch Harbor, Alaska, June 29, 1896.

SIR: Replying to your note of this date concerning the placing of reindeer on the Pribilof Islands, I beg to say that last winter, when the question arose, the North American Commercial Company inquired of Messrs. Redpath and Webster, both of whom, as you know, have had twenty years' experience with seals, what they thought would be the effect on the rookeries of having reindeer at large on the islands. Both expressed the opinion that the experiment would be a dangerous one, in that the reindeer, if uncontrolled in their wanderings, would undoubtedly frighten and annoy the seals. The company earnestly protested against the proposed step. You will see from the above that it is the wish of the company that no reindeer be landed on the islands.

Very truly, yours,

J. STANLEY-BROWN,
Superintendent North American Commercial Company.

Dr. SHELDON JACKSON,
United States General Agent of Education in Alaska.

INTRODUCTION OF DOMESTIC REINDEER INTO ALASKA. 137

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION, ALASKA DIVISION,
Unalaska, Alaska, June 30, 1896.

SIR: Yours of June 24, with regard to placing a few tame reindeer upon the seal islands, is received.

When I left Washington all our arrangements had been made for complying with your request. Since reaching here I learn that the North American Commercial Company has sent to Washington a protest on the subject. Under the circumstances, I can not now say whether reindeer will be brought down this season or not. It will depend upon instructions received from Washington.

Very respectfully, yours,

SHELDON JACKSON,
United States General Agent of Education in Alaska.

Hon. J. B. CROWLEY,
Special Treasury Agent.

INTRODUCTION OF DOMESTIC REINDEER ON SOUTH SEMIDI ISLAND.

GLOBE LOAN AND TRUST COMPANY,
Omaha, Nebr., December 7, 1896.

SIR: Your esteemed favor of the 18th is received.

Since writing you, Mr. Washburn has been here. I talked with him concerning the matter of putting reindeer on some four islands. I assume that there is no place where we could handle them to better advantage. We have one island, South Semidi, where we could experiment with them to good advantage. The land is right, the soil produces good feed, and the conditions are most favorable. Washburn agrees with me and would be glad to undertake the breeding on this island, and we should have 10 or 12 to start with. You can arrange to have the revenue cutter bring them to Unalaska, and we will arrange to have them taken to South Semidi from Unalaska; so there would be no expense for transportation to you. Now, I know of nothing you could do to more rapidly and thoroughly demonstrate the feasibility of the proposition than by putting a few on this island. A number of people—influential—would at once become interested, and would do all in their power in furtherance of the object. You can certainly spare the small number, or increase your purchase in Siberia to this extent and give them to us next year. "Life is short and time is fleeting," and we would be glad if this can be arranged. I will do all I can on the lines suggested.

With a view of securing the necessary appropriation to procure the stock for experimental purposes, we have men on our islands all the year, and an abundance of food and the very best of care can be given

the reindeer. Once started and made a success, we could soon get all the people of southwestern Alaska interested, and in time they would all be supplied, so that in the course of a few years they (the people) would be self-sustaining.

You know that many of these people are dependent on sea-otter hunting for a livelihood, and you know, too, that the sea otter will in a few years at most be a thing of the past. If we act now we may be able to provide for these people in another way.

What price do you pay for reindeer in Siberia? I suppose the Government incurs all expense of transportation. Our little fox-farming enterprise is taking care of a good many people. The reindeer proposition in the vicinity of Kadiak will do a great deal of good in the same direction, and I trust it may be arranged for, so that we can land them on South Semidi early next season.

I have read your report with great interest.

Thanking you for your kindly interest, I remain yours, very truly,
W. B. TAYLOR.

Dr. SHELDON JACKSON.

CONDITION OF ARCTIC ESKIMO.

COMMENTS UPON A FEW FACTS AND FIGURES BY A RESIDENT.

There are two evils which rapidly impair, physically and mentally, the Eskimo and Indian of northern Alaska. These, combined with a prospective third, will possibly cause their ultimate extinction.

The Eskimo, naturally bright and good-tempered, becomes the slave of cards and liquor when the vice is once acquired. Like most aborigines, he blindly gives himself up to his passions. He is dragged down, and lacks the moral strength to shake off the spell. The children's cries for food, which before would nerve and spur this most tender of parents to the most fatiguing hunting trips in order to satisfy their wants, pass unheeded or are stilled with a curse. He becomes dull and morose, and even dangerous when under the influence of liquor. His passing away as part of a race is but a question of time, if no check be put on the sale of several articles, the baneful effect of which he does not realize, or if his eyes at last are opened he is too deeply sunk to resist their power.

The traders of the whaling fleet (or some of them) are chiefly to blame for the existing conditions. Their lack of conscience and pity and their greed of gain prompt and tempt them to barter and sell to the natives cards, liquor, molasses, and sugar, as well as breech-loading arms (to which reference will be made later on in this article), in almost unlimited quantities for furs, whalebone, etc.

Once begun, there is no end to a game of cards until the participants are entirely exhausted for want of food and sleep, or, as often happens, one is in possession of all the goods and chattels of his opponents—powder, rifle, kayak, clothing, and (will it be believed) even children and wife. Much valuable time, especially in summer, is wasted over cards. The hunt and salmon fishing are neglected, and partial starvation during the winter is the inevitable sequence.

With reference to the liquor traffic, native reports (accuracy doubtful) place the quantity of liquor landed on the Siberian side during the summer of 1893 approximately at 400 kegs, of which a large part was brought across the strait after the departure of the revenue cutter. This figure, large though it seems, is insignificant compared

to the amount distilled by the natives on the American side from raw stuffs bartered from the whalers. The reader may naturally ask why such a large quantity of liquor is landed across the strait, where population is scant, instead of landing it directly on the American shore. It is a pleasure to point at one ray of light in this abyss of darkness. It is owing to a single man's untiring vigilance, to a single ship's presence in these waters during part of the summer.

Too high a tribute can not be paid Capt. M. A. Healy, commander of the revenue cutter *Bear*, for the extraordinary zeal which he displays in his good work of preventing illicit traffic, hampered as he is by long distances and other natural obstacles, added to deficient charts, hunting for wrecked whalers, and other objects too numerous to mention. Smuggling is an easy matter with the *Bear* a thousand miles away; yet Captain Healy manages to be in the right place at the right time, and white as well as native rascals stand in wholesome awe of the vessel and its commander. When the *Bear* at last leaves for a balmier clime, the orgies commence. Every hamlet and almost every hut has its apparatus for distillation, which consists of a coal-oil can with a top of wood as the still, an old gun barrel, or, in default of this, two long pieces of wood hollowed out and lashed together; all of which is luted with clay or paste. An old pork or beef barrel contains the mash, made from sugar or molasses and flour. Then they distill and drink, caring for nothing else, till there is no more. Profiting by this craving for drink, the native trader sells from his stock on hand to the poor Eskimo, who, after some days of drunken stupor, finds himself in a condition similar to the one in which he was left by the game of cards of the summer.

From Cape Prince of Wales and Port Clarence there flow, figuratively speaking, streams of liquor; southward to the Yukon delta; northward to Point Hope and as far as whalers go; and inland to all people, even as far as Colville and Koyukuk rivers. As rivers of the desert, they are licked up by a burning desire and end in nothing; but contrary to those, these spread famine and death, and where they end plenty and peace begin. Praiseworthy is the effort of the Alaska Commercial Company's agent at St. Michael, selling sugar and molasses only in small quantities to the native; but the latter, in order to obtain his end, will save up half pounds of sugar or pints of molasses until he has the desired quantity. This, being a slow process, possibly accounts for the comparatively rare occurrence of drunkenness among the natives at that place and the villages around, notwithstanding the fact that whites do not parade as samples of virtue during the summer gathering. The teachings of the evangelical missionaries on Norton Sound have served to greatly elevate the moral standard of the people among whom they work; but how much easier a task it would be if cards and liquor were not obtainable, only the missionaries know. That the lives of missionaries who preach against cards

and liquor are in danger is demonstrated by the facts that the murder of the Rev. Mr. Karlsen was attempted by a drunken native in 1888 at Quigemon, Norton Sound, and that the Rev. Mr. Thornton was shot to death in 1893 at Cape Prince of Wales by two incensed youths.

Gambling and drunkenness are established facts. There is yet a third evil threatening that may prove more disastrous to the Eskimo, the Indian, and the few hundred white men who eke out a precarious living in this step district of this step territory of the United States, namely, the prospective establishment of salmon canneries at the mouths of the rivers, which furnish the inhabitants well-nigh half of their food supply. The history of outfished rivers on the Pacific Coast goes far to show that this northernmost refuge for the salmon would prove no exception.

When the fish, for some cause, do not run as usual, starvation ensues, more or less, from Bering Sea to the McKenzie Range. Here are 10,000 lives, not to count untold suffering, in the balance against a paltry gain in dollars and cents to individuals and corporations.

Something should be done. One man at least fully comprehends the situation, and, if successful, his name deserves a place in the history of this Territory. Even if success should not crown his efforts, he deserves that and more, trying, as he is, to build up a meat house for this community of men, "made in the image of God." But may not Dr. Sheldon Jackson's plan of introducing domestic reindeer, and his work of supplicating the Government and citizens for aid to further his plan, prove a case like the old saying: "While the bread bakes, the child dies?" This plan requires time. Already from 300 to 400 deer are stationed at Port Clarence, where, also, some native boys have been received to be taught herding and the general care of the reindeer. The plan upon which the work of introduction is conducted is open to criticism, as flaws can be found in the seemingly most perfect. Only this: It may be as hard to turn these born hunters into the comparatively tame vocation of herding deer as it was to make a farmer of the Sioux and Apache.

Something more should be done than wasting energy and money in a vain endeavor to prevent the introduction and sale of breech-loading firearms. If a census were taken to-day it would not be astonishing to find that 75 per cent of the natives were armed with Winchester carbines and other more modern breechloaders of varying caliber and range. It is the same old story of the North American Indian repeated, with the difference that those could turn to the soil for support, while these are dependent on the chase exclusively, with the one exception of fishing. With an inferior weapon the native would be worse off than he is. Seal, whale, and deer are not plentiful, as they used to be, yet there are enough for a hunter with a good rifle to keep hunger from the door. The breechloader has come to stay, and not all the efforts of officials, however zealous, can dislodge it.

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Better far to let the regular traders, whose business is based upon an honest deal, furnish the natives with the arms they need at reasonable prices than let the same unscrupulous parties who furnish them with the torch of extinction extort exorbitant prices for them.

With cards and liquor and the material from which to make the latter pouring in as at present, with prospective canneries on every bay and river, with prohibition on the sale of good arms, by which alone the native can procure sufficient game, who and what sort of a generation will it be that shall be benefited by the introduction of reindeer?

What can be done?

First. Control the liquor traffic effectively by establishing at Port Clarence or some other central place a station with resident inspector and assistants. Furnish a small vessel for cruising purposes to places where whalers go to barter, and confiscate and destroy distilling apparatus wherever found.

Second. Make it a misdemeanor to barter or sell to natives playing cards, sugar, molasses, or any saccharine matter until judicial order is established, and control the sale of said articles by the means as above for liquor.

Third. Enact such legislation as will at once and forever prohibit the establishment of salmon canneries or salteries on any of the rivers or bays north of Cooks Inlet, Bering Sea.

Fourth. Annul the prohibition and sale of breech-loading firearms, which are needed for reasons previously set forth.

Fifth. Bring from Siberia or Lapland a dozen families to settle as immigrants. Furnish them deer from Port Clarence, thus solving the question of reindeer introduction quickly and safely, and with less expense than keeping up a breeding establishment, with superintendent, assistant, hired help, civilized fare, and sundry expensive items.

One who reads the annual reports of the governor of this Territory will observe that it furnishes hundreds of thousands of dollars annually to the Federal Treasury, and millions to the pockets of individuals and corporations paying taxes in other Territories and States. Is it unreasonable, then, in the face of such facts, to ask for the natives up here a fraction of the protection their Indian brethren enjoy in the United States?

Protection as above indicated will enable our natives to support themselves by hunting, fishing, and trapping for decades to come; when a new generation may have thoroughly mastered the handling of reindeer, adopted the life of the Lapp, Samojede, or Chuckchi, and, by general progress and evolution of mind, be better fitted to grapple with arising questions of daily bread. (Yukon Press.)

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